S. Hrg. 101-495

EVERGLADES NATIONAL PARK PROTECTION AND EXPANSION ACT OF 1989

HEARING

BEFORE THE

SUBCOMMITTEE ON
PUBLIC LANDS, NATIONAL PARKS AND FORESTS

OF THE

COMMITTEE ON
ENERGY AND NATURAL RESOURCES
UNITED STATES SENATE

ONE HUNDRED FIRST CONGRESS

FIRST SESSION

ON

S. 724

TO MODIFY THE BOUNDARIES OF THE EVERGLADES NATIONAL PARK AND TO PROVIDE FOR THE PROTECTION OF LANDS, WATERS, AND NATURAL RESOURCES WITHIN THE PARK, AND FOR OTHER PURPOSES

JUNE 20, 1989

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EVERGLADES NATIONAL PARK PROTECTION AND EXPANSION ACT OF 1989

TUESDAY, JUNE 20, 1989

U.S. Senate,
Subcommittee on Public Lands,
National Parks and Forests,
Committee on Energy and Natural Resources,
Washington, DC.

The subcommittee met, pursuant to notice, at 9:30 a.m. in room SD-366, Dirksen Senate Office Building, Hon. Dale Bumpers, presiding.

OPENING STATEMENT OF HON. CONRAD BURNS, U.S. SENATOR FROM MONTANA

Senator Burns. Good morning. Senator Bumpers is on his way and in the essence of time I know we have many special guests this morning who have a full morning schedule. I have Senator Bumpers' statement here which will be entered into the record. We will start the hearing this morning on S. 724, a bill to modify the boundaries of the Everglades National Park Forest to provide for the protection of lands, waters, and natural resources within the park, and for other purposes.

[The prepared statements of Senators Bumpers, McClure, and Wallop and the text of S. 724 follow:]

STATEMENT OF THE HONORABLE DALE BUMPERS

JUNE 20, 1989

THE PURPOSE OF TODAY'S HEARING IS TO RECEIVE TESTIMONY ON S. 724, THE EVERGLADES NATIONAL PARK PROTECTION AND EXPANSION ACT OF 1989.

EVERGLADES NATIONAL PARK IS THE SECOND LARGEST NATIONAL PARK IN THE LOWER 48 STATES. THE 1.4 MILLION ACRES OF THE PARK, OF WHICH OVER 90 PERCENT ARE DESIGNATED AS WILDERNESS, ARE HOME TO MANY THREATENED AND ENDANGERED PLANTS AND ANIMALS, SUCH AS THE FLORIDA PANTHER, WOOD STORK, AND AMERICAN CROCODILE. THIS SUBCOMMITTEE HAS BEEN INVOLVED OVER THE YEARS WITH NUMEROUS PIECES OF LEGISLATION CONCERNING THE PRESERVATION OF THE SOUTH FLORIDA ENVIRONMENT, INCLUDING LEGISLATION DESIGNATING MOST OF THE EVERGLADES AS WILDERNESS, THE CREATION OF THE BIG CYPRESS NATIONAL PRESERVE, AND LAST CONGRESS, THE PASSAGE OF THE BIG CYPRESS EXPANSION ACT AND THE ARIZONA - FLORIDA LAND EXCHANGE ACT, WHICH TOGETHER ADDED OVER 100,000 ACRES TO THE BIG CYPRESS NATIONAL PRESERVE, AND THE FLORIDA PANTHER AND TEN THOUSAND ISLANDS NATIONAL WILDLIFE REFUGES.

I LOOK FORWARD TO HEARING FROM TODAY'S WITNESSES, MANY OF WHOM HAVE COME UP FROM FLORIDA TO TESTIFY. I WILL ASK EACH WITNESS TO PLEASE SUMMARIZE YOUR TESTIMONY. YOUR ENTIRE WRITTEN TESTIMONY WILL BE ENTERED INTO THE HEARING RECORD. PLEASE LIMIT YOUR ORAL REMARKS TO NO MORE THAN FIVE MINUTES.

AT THIS TIME, I WILL PLACE A COPY OF S. 724 IN THE HEARING RECORD. THE RECORD WILL REMAIN OPEN FOR TWO WEEKS TO RECEIVE ADDITIONAL TESTIMONY AND COMMENTS.

STATEMENT OF SENATOR JAMES A. McCLURE ON
S. 724
THE EVERGLADES NATIONAL PARK PROTECTION AND EXPANSION ACT OF 1989
JUNE 20, 1989

MR. CHAIRMAN, THANK YOU VERY MUCH FOR SCHEDULING THIS HEARING ON S. 724, A BILL TO EXPAND THE EVERGLADES NATIONAL PARK.

IN JANUARY 1988, THEN SECRETARY OF THE INTERIOR HODEL AND FLORIDA GOVERNOR MARTINEZ ESTABLISHED A JOINT FEDERAL-STATE TASK FORCE TO STUDY THE NEED FOR FUTURE LAND ACQUISITION TO ENHANCE THE EVERGLADES NATIONAL PARK. THE LEGISLATION BEFORE US TODAY IS ONE OF THE RESULTS OF THE 9 MONTH LONG EFFORT AND DILIGENT WORK BY THE TASK FORCE. I KNOW THAT SENATOR BOB GRAHAM AND CONGRESSMAN DANTE FASCELL AND MORE RECENTLY SENATOR MACK AND THEIR RESPECTIVE STAFFS HAVE SPENT CONSIDERABLE TIME IN TRANSLATING THE TASK FORCE RECOMMENDATIONS INTO SPECIFIC LEGISLATION. MR. CHAIRMAN, I WOULD LIKE TO COMMEND ALL OF THOSE WHO HAVE PARTICIPATED IN THIS ENDEAVOR.

WHILE I AM GENERALLY SYMPATHETIC TO THE CONCEPT OF EXPANDING AND ENHANCING THE EVERGLADES NATIONAL PARK, IT MUST BE PUT INTO PERSPECTIVE. ACCORDING TO THE NATIONAL PARK SERVICE THE ESTIMATED COST FOR LAND ACQUISITION ALONE IS $32 MILLION. ACCORDING TO THE SAME SOURCE, THE ARMY CORPS OF ENGINEERS ESTIMATES THE LAND ACQUISTION COST WILL BE $70 MILLION. WE ARE AGAIN ADDING TO AN ALREADY SIZABLE BACKLOG OF ACQUISITION PRIORITIES. MOREOVER, I DOUBT WHETHER THIS ACQUISITION BY ITSELF WILL SOLVE THE PROBLEMS FACING THE PARK.

4

SPECIFICALLY, WE MUST ADDRESS THE WATER QUALITY PROBLEM WHICH ORIGINATES MUCH FURTHER UP THE SLOUGH. IN ADDITION, I QUESTION IF WE ARE NOT COMPOUNDING THE WATER QUALITY PROBLEM BY INCREASING FLOWS OF MORE HIGHLY POLLUTED, NUTRIENT-RICH WATER OVER A LARGER AREA OF THE PARK.

THIS LEGISLATION AS CURRENTLY WRITTEN COULD HAVE SERIOUS IMPACTS ON AGRICULTURE IN SOUTH DADE COUNTY, ON THE 800 RESIDENTS OF THE "8.5 SQUARE MILE SECTION", ON OTHER ADJACENT AGRICULTURAL UNITS TO THE PROPOSED BOUNDARY, AS WELL AS ON THE ECOLOGY OF THE PARK AND ITS IMMEDIATE ENVIRONMENT. CAREFUL ANALYSIS OF THESE IMPACTS WILL BE CRITICAL IN FASHIONING A PIECE OF LEGISLATION WHICH CAN BE APPROVED BY CONGRESS.

MR CHAIRMAN, I LOOK FORWARD TO THE TESTIMONY WHICH WILL BE PRESENTED TODAY; AND I HOPE THAT A VIABLE SOLUTION CAN BE REACHED WHICH IS FAIR TO ALL PARTIES AND WHICH PROTECTS THE INTEGRITY OF A MAJOR PARK UNIT.

THANK YOU.

Malcolm Wallop

STATEMENT OF SENATOR MALCOLM WALLOP ON

S. 724

THE EVERGLADES NATIONAL PARK PROTECTION AND EXPANSION ACT OF 1989

June 20, 1989

Mr. Chairman, thank you for holding these hearings today on this most important subject, the east Everglades acquisition.

As you are aware, Florida's Governor Bob Martinez proposed a joint state and Federal acquisition of the lands along the park's eastern boundary. The East Everglades Land Acquisition Task Force, with Representatives from county, state, and Federal governments, special interest groups and local residents, developed recommendations for expanding the boundaries of Everglades National Park to include more than 100,000 acres of sensitive wetlands in east Everglades. I applaud the work of the Task Force and that of the Florida delegation.

There has been an enormous amount of attention given to Everglades, and I think it is useful that the Committee has scheduled this hearing as the problems facing the Everglades are extremely complex -- as will be the solution.

There is no question that Everglades is important. So is Big Thicket, Antietam, and all the other units of the System. We have numerous natural areas which are threatened, and we have historic sites which are also threatened. We have significant demands on our resources simply to maintain and rehabilitate what we have. We have a backlog of acquisition. Should Everglades leap ahead of all other areas?

Mr. Chairman, I note that we have Mr. Jack Morehead with us today. Mr. Morehead is the former Superintendent of Yosemite, and prior to that Superintendent of Everglades National Park. He has just been appointed as Associate Director of Operations for the National Park Service. Jack, I know I speak for the entire Committee in congratulating you on your new appointment and welcome you to the witness table for the first time in your new capacity.

I am sure you realize the total scope of this land acquisition problem. When you leave here today, I wish you would take a message back to the Department of the Interior. And that message is, we must deal on threats to the parks on a priority basis. Is Manassas more important than Everglades? Is Redwoods more important than Petersburg? We have built a backlog of acquisition which makes additional acquisitions almost wishful thinking. I regret that very much. I sincerely wish we had the resources to acquire and protect all that we should so that future generations could enjoy what we have had. But the fact is that resources are finite and priorities must be decided upon.

Without some sort of system of prioritizing, I fear we will just add more applicants to the backlog of acquisition. Thank you, Mr. Morehead.

Mr. Chairman, again let me state one more time -- in the case of Everglades, the Govenor's process which brought all interested parties to the table is an example of how these problems should be addressed. I hope other areas learn from this example. And I trust we can provide some viable solution to this important problem.

Thank you, Mr. Chairman.

II

101st CONGRESS
1st Session

S. 724

To modify the boundaries of the Everglades National Park and to provide for the protection of lands, waters, and natural resources within the park, and for other purposes.

IN THE SENATE OF THE UNITED STATES

April 6 (legislative day, January 3), 1989

Mr. Graham introduced the following bill; which was read twice and referred to the Committee on Energy and Natural Resources

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A BILL

To modify the boundaries of the Everglades National Park and to provide for the protection of lands, waters, and natural resources within the park, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the "Everglades National Park Protection and Expansion Act of 1989".

TITLE I—EVERGLADES NATIONAL PARK EXPANSION

SEC. 101. FINDINGS AND PURPOSES.

(a) FINDINGS.—The Congress makes the following findings:

(1) The Everglades National Park is a nationally and internationally significant resource and the park has been adversely affected and continues to be adversely affected by external factors which have altered the ecosystem including the natural hydrologic conditions within the park.

(2) The existing boundary of Everglades National Park excludes the contiguous lands and waters of the Northeast Shark River Slough that are vital to long-term protection of the park and restoration of natural hydrologic conditions within the park.

(3) Wildlife resources and their associated habitats have been adversely impacted by the alteration of natural hydrologic conditions within the park, which has contributed to an overall decline in fishery resources and a 90 percent population loss of wading birds.

(4) Incorporation of the Northeast Shark River Slough and the East Everglades within the park will limit further losses suffered by the park due to habitat destruction outside the present park boundaries and

will preserve valuable ecological resources for use and enjoyment by future generations.

(5) The State of Florida and certain of its political subdivisions or agencies have indicated a willingness to transfer approximately 35,000 acres of lands under their jurisdiction to the park in order to protect lands and water within the park, and may so transfer additional lands in the future.

(6) The State of Florida has proposed a joint Federal-State effort to protect Everglades National Park through the acquisition of additional lands.

(b) PURPOSE.—The purposes of this Act are to—

(1) increase the level of protection of the outstanding natural values of Everglades National Park and to enhance and restore the ecological values, natural hydrologic conditions, and public enjoyment of such area by adding the area commonly known as the Northeast Shark River Slough and the East Everglades to Everglades National Park; and

(2) assure that the park is managed in order to maintain the natural abundance, diversity, and ecological integrity of native plants and animals, as well as the behavior of native animals, as a part of their ecosystem.

SEC. 102. BOUNDARY MODIFICATION.

(a) AREA INCLUDED.—The boundary of the Everglades National Park (in this Act referred to as the "park") is hereby modified to include approximately 110,000 additional acres (in this Act referred to as the "addition") as generally depicted on the map entitled "Boundary Map, Everglades National Park Addition, Dade County, Florida", numbered 160–20,013, and dated April, 1989. The map shall be on file and available for public inspection in the offices of the National Park Service, Department of the Interior.

(b) BOUNDARY ADJUSTMENT.—The Secretary of the Interior (in this Act referred to as the "Secretary") may from time to time make minor revisions in the boundaries of the park in accordance with section 7(c) of the Land and Water Conservation Fund Act of 1965 (16 U.S.C. 4601–4 and following). In exercising the boundary adjustment authority the Secretary shall ensure all actions will enhance resource preservation and shall not result in a net loss of acreage from the park.

(c) ACQUISITION.—(1) Within the boundaries of the addition described in subsection (a), the Secretary may acquire lands and interests in land by donation, purchase with donated or appropriated funds, or exchange. For purposes of acquiring property by exchange, the Secretary may, notwithstanding any other provision of law, exchange the approximately one acre of Federal land known as "Gilberts' Marina" for non-Federal land of equal value located within the boundaries of the addition. Any lands or interests in land which are owned by the State of Florida or any political subdivision thereof, may be acquired only by donation.

(2) It is the express intent of Congress that acquisition within the boundaries of the addition shall be completed not later than 5 years after the date of enactment of this section. The authority provided by this section shall remain in effect until all acquisition is completed.

(d) ACQUISITION OF TRACTS PARTIALLY OUTSIDE BOUNDARIES.—When any tract of land is only partly within boundaries referred to in subsection (a), the Secretary may acquire all or any portion of the land outside of such boundaries in order to minimize the payment of severance costs. Land so acquired outside of the boundaries may be exchanged by the Secretary for non-Federal lands within the boundaries, and any land so acquired and not utilized for exchange shall be reported to the General Services Administration for disposal under the Federal Property and Administrative Services Act of 1949 (63 Stat. 377).

(e) OFFERS TO SELL.—In exercising the authority to acquire property under this Act, the Secretary shall give prompt and careful consideration to any offer made by any person owning property within the boundaries of the addition to sell such property, if such owner notifies the Secretary that the continued ownership of such property is causing, or would result in undue hardship.

(f) AUTHORIZATION OF APPROPRIATIONS.—(1) Subject to the provisions of paragraph (2), there are hereby authorized to be appropriated such sums as may be necessary to carry out the provisions of this Act.

(2) With respect to land acquisition within the addition, not more than 80 percent of the cost of such acquisition may be provided by the Federal Government. Not less than 20 percent of such cost shall be provided by the State of Florida.

(g) ASSISTANCE.—Upon the request of the Governor of the State of Florida, the Secretary is authorized to provide technical assistance and personnel to assist in the acquisition of lands and waters within the Kissimmee River/Lake Okeechobee/Everglades Hydrologic Basin, including the Big Cypress Swamp, through the provision of Federal land acquisition personnel, practices, and procedures. The State of Florida shall reimburse the Secretary for such assistance in such amounts and at such time as agreed upon by the Secretary and the State. Notwithstanding any other provision of law, reimbursement received by the Secretary for such assistance shall be retained by the Secretary and shall be available without further appropriation for purposes of carrying out any authorized activity of the Secretary within the boundaries of the park.

SEC. 103. ADMINISTRATION.

(a) In General.—The Secretary shall administer the areas within the addition in accordance with this Act and other provisions of law applicable to the Everglades National Park, and with the provisions of law generally applicable to units of the national park system, including the Act entitled "An Act to establish a National Park Service, and for other purposes", approved August 25, 1916 (39 Stat. 535; 16 U.S.C. 1–4). In order to further preserve and protect Everglades National Park, the Secretary shall utilize such other statutory authority as may be available to him for the preservation of wildlife and natural resources as he deems necessary to carry out the purposes of this Act.

(b) Protection of Ecosystem.—The Secretary shall manage the park in order to maintain the natural abundance, diversity, and ecological integrity of native plants and animals, as well as the behavior of native animals, as a part of their ecosystem.

(c) Protection of Flora and Fauna.—The park shall be closed to the operation of airboats—

(1) except as provided in subsection (d); and

(2) except that within a limited capacity and on designated routes within the addition, owners of record of registered airboats in use within the addition as of January 1, 1989, shall be issued nontransferable, nonrenewable permits, for their individual lifetimes, to op-

erate personnally-owned airboats for noncommercial use in accordance with rules prescribed by the Secretary to determine ownership and registration, establish uses, permit conditions, and penalties, and to protect the biological resources of the area.

(d) CONCESSION CONTRACTS.—The Secretary is authorized to negotiate and enter into concession contracts with the owners of commercial airboat and tour facilities in existence on or before January 1, 1989, located within the addition for the provision of such services at their current locations under such rules and conditions as he may deem necessary for the accommodation of visitors and protection of biological resources of the area.

(e) VISITOR CENTER.—The Secretary is authorized and directed to expedite the construction of the visitor center facility at Everglades City, Florida, as described in the Development Concept Plan, Gulf Coast, dated February 1989, and upon construction shall designate the visitor center facility as "The Marjory Stoneman Douglas Center" in commemoration of the vision and leadership shown by Mrs. Douglas in the protection of the Everglades and Everglades National Park.

TITLE II—FORT JEFFERSON NATIONAL MONUMENT REDESIGNATION STUDY

SEC. 201. FORT JEFFERSON NATIONAL MONUMENT REDESIGNATION STUDY.

The Secretary shall prepare and transmit to the Committee on Energy and Natural Resources of the Senate and the Committee on Interior and Insular Affairs of the House of Representatives, not later than 2 years after the date of enactment of this Act, a feasibility and suitability study of expanding and redesignating Fort Jefferson National Monument in the Dry Tortugas as Fort Jefferson National Park. The study shall include cost estimates for any necessary acquisition, development, operation, and maintenance, as well as alternatives, including a joint Federal and State management scheme, to further protect the waters, reef tracts, fisheries, and shallow banks in and around the Florida Keys and Fort Jefferson National Monument.

○

Senator **Burns**. I would like to recognize at this time my colleague Senator Bob Graham of Florida. Senator Graham, it is nice to have you here this morning, and I know you have a busy schedule ahead of yourself, and I know you want to make some comments, so I would say now that your testimony will be entered in full in the record. So, welcome this morning, and we appreciate hearing from you.

STATEMENT OF HON. BOB GRAHAM, U.S. SENATOR FROM FLORIDA

Senator **Graham**. Thank you very much, Senator.

I wish to express my appreciation to you and Chairman Bumpers and other members of the subcommittee for the generous consideration which you have given to this legislation today, in the past, and to other important national resource legislation for our state of Florida.

Mr. Chairman, I would request that a full text of a statement prepared by my colleague and sponsor of this legislation in the House of Representatives, Congressman Dante Fascell, who is unable to be here today, be entered in the record.

Senator **Burns**. Without objection.

Senator **Graham**. And also, Mr. Chairman, I ask that a copy of my prepared statement be entered into the record, and I will summarize in my remarks this morning.

Senator **Burns**. So ordered. Thank you very much.

Senator **Graham**. Thank you very much.

Mr. Chairman, we are considering today S. 724, the Everglades National Park Protection and Expansion Act of 1989.

This is an extremely important piece of legislation in the preservation of a world-class resource, the second largest national park in the continental United States and an internationally important natural resource.

I wish to thank Senator Mack and the other members of the Florida delegation who have unanimously cosponsored this legislation.

I would like to underscore that this legislation is the result of a long and very bipartisan process in our state beginning over 15 years ago, a process which was based on the need to provide additional protection for Everglades National Park.

We witnessed at that time a steady deterioration of the park, and its very substantial, unique wildlife and fauna. We had seen a gradual change in the character of the park.

All of this focused on the importance of providing increased protections around the park, particularly for the freshwater flow, its quantity, its quality, and its hydroperiod.

As part of that process, Mr. Chairman, since the mid-1970s the state and the federal government have embarked on a very aggressive land acquisition program to provide buffers around the park.

Today we are dealing with the issue of the boundaries of the park itself.

Everglades National Park was established in 1947. As you can see from the chart, the boundaries were drawn by surveyors' lines and are very straight.

The reality of the natural resources which support this park is that they are very much a flowing river and, as you can see, much of that river is outside the boundaries of the park.

Mr. Chairman, if I could go to the chart.

This is Shark River Slough, which is the major water flow into Everglades National Park in the northeast. Much of that area is now outside the boundaries of the park or outside the boundaries of a publicly controlled water conservation area.

The basic strategy of the federal government and the state since the mid-seventies has been to acquire additional properties around Everglades National Park in order to give it additional protection.

In 1974 the state and the federal government authorized the Big Cypress National Preserve in this area. Subsequent to that time the Big Cypress National addition has been authorized by the last Congress.

We are now talking about enlarging the boundaries of the park in the northeast area in order to bring into park control that area of the northeast Everglades which is critical to water flow into the park.

There will be some questions raised today, Mr. Chairman. One of those questions is whether the area that is proposed to be brought into the park should be done so as an expansion of the park or as another preserve.

Mr. Chairman, we feel very strongly that this area in the northeast Shark River Slough should be part of the park itself. Any natural system consideration of the boundaries of the park would have included this area within the park initially. It has only been since 1947 that we have fully appreciated the importance of this water flow system for the protection of the essential integrity of the park.

There is and will be some testimony today encouraging that this area of northeast Shark River Slough be managed as a preserve rather than a park under the basis that there should be no net loss of hunting land.

Mr. Chairman, such a designation and subsequent management would defeat the purpose of the habitat enhancement and protection which we strive to achieve through this bill.

Furthermore, thousands of acres have already been added to the hunting inventory with the acquisition of the Big Cypress preserve to the north of the park. More than 100,000 new acres are authorized for acquisition as an addition to the preserve as a result of the 1988 legislation. Any existing controversies over hunting restrictions relative to the Big Cypress preserve are separate matters altogether and should not be confused with this legislation to expand the boundaries of the park in the northeast Shark River Slough.

This legislation is based on a bipartisan recommendation of the East Everglades Land Acquisition Task Force, established by Governor Martinez in March of 1988. The members of this task force included federal, state and local government representatives as well as two private citizens. Task force participation, bill drafting, and expansion support have all been borne out in bipartisan cooperation.

I would like to point out that this bipartisan task force after public hearings and much deliberation emphatically recommended that the proposed expansion of the park be managed by the Park Service.

I would also emphasize the bill we are discussing incorporates that recommendation and has been cosponsored as such by the entire Florida delegation, House and Senate.

Mr. Chairman, one final matter. We are currently drafting an amendment which would authorize the modifications necessary to provide flood control and accomplish the Everglades restoration effort this legislation seeks to address.

I urge you to give favorable consideration to this amendment when mark-up on the bill occurs.

Mr. Chairman, I appreciate your consideration and your willingness to include in the record the full text of my remarks as well as those of Congressman Fascell, and I would be pleased to answer any questions.

[The prepared statements of Senator Graham and Mr. Fascell follow:]

TESTIMONY OF SENATOR BOB GRAHAM
REGARDING THE
EVERGLADES NATIONAL PARK PROTECTION AND EXPANSION ACT OF 1989
SUBCOMMITTEE ON PUBLIC LANDS, NATIONAL PARKS AND FORESTS
SENATE COMMITTEE ON ENERGY AND NATURAL RESOURCES
JUNE 20, 1989

MR. CHAIRMAN, MEMBERS OF THE SUBCOMMITTEE, THANK YOU FOR THIS OPPORTUNITY TO TESTIFY BEFORE YOU ON THE "EVERGLADES NATIONAL PARK PROTECTION AND EXPANSION ACT OF 1989", AN EXTREMELY IMPORTANT PIECE OF LEGISLATION IN THE PRESERVATION OF A WORLD CLASS RESOURCE IN SOUTHERN FLORIDA. I WANT TO THANK MY FRIEND AND COLLEAGUE, DANTE FASCELL, WHO I AM JOINED BY IN HAVING INTRODUCED IDENTICAL LEGISLATION. CONGRESSMAN FASCELL IS UNABLE TO JOIN US THIS MORNING DUE TO OTHER COMMITTEE BUSINESS. I ASK UNANIMOUS CONSENT THAT HIS FULL STATEMENT BE ENTERED INTO THE RECORD AS IF READ.

I ALSO WISH TO THANK SENATOR MACK AND OTHER FLORIDA DELEGATION MEMBERS FOR THEIR CO-SPONSORSHIP.

THIS LEGISLATION IS VITAL TO THE IMMEDIATE RECOVERY AND LONG-TERM RESTORATION OF EVERGLADES NATIONAL PARK. THE PARK WAS ESTABLISHED IN 1947, AND SINCE THAT TIME HAS SUFFERED LOSS OF FLORA AND FAUNA. THE ECOLOGICAL DETERIORATION WAS EXACERBATED BY CANAL PROJECTS IN THE 1960'S, AUTHORIZED PRIOR TO THE NATIONAL ENVIRONMENTAL POLICY ACT AND THE ENDANGERED SPECIES ACT.

AS A RESULT, THE POTENTIAL IMPACTS OF THE EARLY CENTRAL AND SOUTHERN PROJECTS WERE NEVER FULLY ASSESSED OR UNDERSTOOD IN LIGHT OF THESE STATUTES. THIS LEGISLATION OFFERS THE POTENTIAL TO MITIGATE THE DAMAGES VISITED UPON EVERGLADES NATIONAL PARK BY THE ORIGINAL CENTRAL AND SOUTHERN PROJECTS AND THE LOSS OF ADJACENT WETLANDS TO DEVELOPMENT.

SINCE THE 1930'S, THE PARK HAS LOST ABOUT 90% OF ITS WADING BIRD POPULATION. THE ROSEATE SPOONBILL POPULATION HAS PLUMMETED 50% SINCE THE 1980 CENSUS. FOR THE LAST TWO YEARS, AT LEAST 50% OF THE PARK'S ALLIGATOR REPRODUCTION HAS BEEN DESTROYED. SINCE THE 1950'S, THE ENDANGERED WOODSTORK POPULATION HAS DECLINED FROM 2370 NESTING PAIRS TO 373 PAIRS IN THE 1980'S. FOR THE LAST TWO YEARS, WE HAVE WITNESSED TOTAL REPRODUCTION FAILURE DUE TO CONDITIONS AGGRAVATED BY WATER MANAGEMENT ACTIVITIES. THE PROPOSED ADDITION WILL RESTORE 35% OF THE FORMER WOODSTORK HISTORIC FEEDING RANGE.

THE LAST REMAINING HABITAT AVAILABLE TO THE PARK POPULATION FOR THE ENDANGERED FLORIDA PANTHER WILL BE PROTECTED IN THE PARK. CURRENTLY THE ONLY KNOWN MALE PANTHER IN THE PARK POPULATION UTILIZES THE AREA TO BE ADDED TO THE PARK. THE PROPOSED ADDITION

WILL ALSO ENHANCE THE HABITAT AVAILABLE TO THE ENDANGERED SNAIL KITE AND THE ENDANGERED CAPE SABLE SPARROW.

EVERGLADES NATIONAL PARK IS IN DANGER OF DYING. NOT FROM A SINGLE FATAL BLOW, BUT FROM THE CUMULATIVE IMPACTS OF NUMEROUS ACTIVITIES. WITHOUT THIS PROPOSED ADDITION AND THE SUBSEQUENT ALTERATIONS IN WATER MANAGEMENT PRACTICES, EVERGLADES NATIONAL PARK COULD FACE ECOLOGICAL COLLAPSE WITHIN THE NEXT FEW DECADES. WE CANNOT FAIL TO PROMOTE RESTORATION TO A MORE NATURAL STATE, IF WE EXPECT TO TRULY SAVE THE EVERGLADES.

YOU MAY HEAR TESTIMONY TODAY ENCOURAGING MANAGEMENT OF THIS AREA AS A PRESERVE RATHER THAN A PARK, UNDER THE CRY THAT THERE CAN BE NO NET LOSS OF HUNTING LAND. MR. CHAIRMAN, SUCH DESIGNATION AND SUBSEQUENT MANAGEMENT WOULD DEFEAT THE PURPOSE OF THE HABITAT ENHANCEMENT AND PROTECTION WHICH WE STRIVE TO ACHIEVE THROUGH THIS BILL. FURTHERMORE, THOUSANDS OF ACRES WERE ADDED TO THE HUNTING INVENTORY WITH THE ACQUISITION OF THE BIG CYPRESS PRESERVE TO THE NORTH OF THE PARK. MORE THAN 100,000 NEW ACRES ARE AUTHORIZED FOR ACQUISITION AS AN ADDITION TO THE PRESERVE, ON WHICH HUNTING WILL BE ALLOWED.

ANY EXISTING CONTROVERSIES OVER HUNTING RESTRICTIONS RELATIVE TO THE BIG CYPRESS PRESERVE ARE A SEPARATE MATTER ALTOGETHER AND SHOULD NOT BE USED POLITICALLY TO HOLD UP THE EVERGLADES EXPANSION.

THIS LEGISLATION IS BASED ON BIPARTISAN RECOMMENDATIONS OF THE "EAST EVERGLADES LAND ACQUISITION TASK FORCE", ESTABLISHED BY GOVERNOR MARTINEZ IN MARCH OF 1988. ITS MEMBERS INCLUDED FEDERAL, STATE AND LOCAL GOVERNMENT REPRESENTATIVES, AS WELL AS TWO PRIVATE CITIZENS. TASK FORCE PARTICIPATION, BILL DRAFTING, AND EXPANSION SUPPORT HAVE BEEN BORNE OUT OF BIPARTISAN COOPERATION.

I WOULD LIKE TO POINT OUT THAT THIS BIPARTISAN TASK FORCE, AFTER PUBLIC HEARINGS AND MUCH DELIBERATION, EMPHATICALLY RECOMMENDED AN EXPANSION OF THE PARK TO BE MANAGED BY THE PARK SERVICE. I ALSO EMPHASIZE THAT THE BILL WE ARE DISCUSSING INCORPORATES THAT RECOMMENDATION AND HAS BEEN CO-SPONSORED AS SUCH BY THE ENTIRE FLORIDA DELEGATION.

APPROXIMATELY 108,000 ACRES WOULD BE ADDED TO THE EVERGLADES NATIONAL PARK, OF WHICH ABOUT 43,000 ACRES WOULD BE TRANSFERRED FROM THE STATE TO THE FEDERAL GOVERNMENT. THE REMAINING ACREAGE WOULD BE PURCHASED ON AN 80% FEDERAL - 20% STATE COST-SHARING BASIS, AT AN ESTIMATED TOTAL ACQUISITION COST OF $40 MILLION.

THE AREAS TO BE ACQUIRED, CONSISTENT WITH THE TASK FORCE RECOMMENDATIONS, INCLUDE:

- 70,740 ACRES IN THE NORTHEAST SHARK RIVER SLOUGH (8,350 OF THESE ARE ALREADY PUBLICLY OWNED)
- 34,560 ACRES IN THE EAST EVERGLADES WILDLIFE AND ENVIRONMENTAL CONSERVATION AREA, JOINTLY OWNED BY THE STATE AND THE SOUTH FLORIDA WATER MANAGEMENT DISTRICT.
- 2,300 ACRES IN AN AREA BETWEEN THE EAST EVERGLADES WILDLIFE AND ENVIRONMENTAL CONSERVATION AREA AND THE L-31 CANAL.

THIS IS A PROPOSAL THAT IS VITAL IF WE ARE TO SAVE THE FRAGILE SUB-TROPICAL WILDERNESS. WE MUST RESTORE THE "RIVER OF GRASS" TO THE EXTENT HUMANLY POSSIBLE, GIVEN THE HUMAN DETERIORATION IMPOSED ON THIS UNIQUE ECOSYSTEM. THE EXPANSION WE ARE PROPOSING COMPLEMENTS THE ACQUISITION OF THE BIG CYPRESS ADDITION ON THE NORTHERN SIDE OF THE EVERGLADES, APPROVED LAST YEAR -- WHILE ASSURING ENHANCEMENT OF THE CRITICAL ENHANCEMENT EAST OF THE CURRENT PARK BOUNDARIES. SUCH BUFFERS TO THE PARK WILL MAKE POSSIBLE THE PRESERVATION OF THE PRECIOUS RESOURCE WE CALL THE EVERGLADES.

WE ARE CURRENTLY DRAFTING AN AMENDMENT WHICH WOULD AUTHORIZE THE MODIFICATIONS NECESSARY TO PROVIDE FLOOD CONTROL AND ACCOMPLISH THE EVERGLADES RESTORATION EFFORT THIS LEGISLATION SEEKS TO ADDRESS. I URGE YOU TO GIVE FAVORABLE CONSIDERATION TO THIS AMENDMENT WHEN MARKUP OF THE BILL OCCURS.

MR. CHAIRMAN, MEMBERS, I THANK YOU FOR YOUR TIME AND ATTENTION TODAY AND ENCOURAGE YOUR SUPPORT OF THIS VITAL LEGISLATION.

STATEMENT OF CONGRESSMAN DANTE B. FASCELL BEFORE THE SUBCOMMITTEE ON PUBLIC LANDS, NATIONAL PARKS AND FORESTS

IN SUPPORT OF S. 724, TO EXPAND EVERGLADES NATIONAL PARK

JUNE 20, 1989

Mr. Chairman and members of the subcommittee, I want to thank you for giving me this opportunity to testify in support of S. 724, the companion bill to H.R. 1727, which I introduced in the House, to expand Everglades National Park. I am particularly grateful to you for scheduling this hearing so promptly. It indicates your recognition of the serious problems being faced by the Park and your willingness to address them.

While Senator Graham and I just introduced this legislation in April, its roots go back more than a year. We, in South Florida, have known for some time that the Park is in trouble. In fact, we have been trying to save the Everglades ever since the Park was established in the 1940's. The figures are staggering: In the last fifty years, the Everglades has lost 90 per cent of its wading bird population; since the 1980 census, the roseate spoonbill population has been depleted by 50 per cent; for the last two years, at least 50 per cent of the park's alligator reproduction has been destroyed. I could go on, but I believe you are familiar with the Park and you know it is dying.

Mankind has, unfortunately, been one of the major causes of this dramatic decline through water management practices over the years. There has not been any intentional effort to harm the Park; to the contrary, we thought--with the best expertise available at the time--that we were doing what was needed to save it. Now we know we were wrong and that what is really needed is to restore the natural flow of water through the entire ecosystem, from Lake Okeechobee down to Florida Bay. To do this will require running the water through the Northeast Shark River Slough, which was left out of the original park years ago.

This new solution--to go back to the way it was in the beginning--is generally accepted by the Corps of Engineers, the South Florida Water Management District and private hydrologists who have spent years studying the area. To this end, Florida's Governor, Bob Martinez, formed a special Task Force last year to "evaluate the feasibility of acquiring lands in the East Everglades through the joint efforts of the state and federal governments" and to develop an acquisition plan. The East Everglades Land Acquisition Task Force issued its report on October 1, 1988, and it is its recommendations that are incorporated into the legislation before us today.

Mr. Chairman, I am pleased to tell you that the entire Florida Congressional delegation has cosponsored this bill, demonstrating the strong bipartisan support it enjoys. In fact, this is not a partisan issue at all. It is a human issue that recognizes the need to preserve one of our state's and our nation's most unique natural resources and the action that is required to accomplish this.

The importance attached to this project by the State of Florida is clearly demonstrated by the state's willingness not only to donate approximately 43,000 acres of state-owned lands to the federal government, but to also provide 20 per cent of the cost of acquisition of the privately-owned lands.

In addition to the support of our delegation and the State, Dade County and the cities of Homestead and Florida City have adopted resolutions expressing support for the legislation and the Miami Herald has endorsed it.

The bill as written will have a minimal impact on traditional hunting and airboat activities in the area. While hunting will be prohibited, as it is in all national parks, there is very little hunting in the expansion area now. Individual airboats will continue to be permitted in the expansion area for those who already held permits as of January 1, 1989, although routes will be restricted and subject to regulation by the National Park Service. The permits will not be transferable and will not be renewable after the lifetime of the current holder. Commercial airboat activities will continue to be operated on a concession basis through the National Park Service. In addition, all these activities will continue to be allowed in the area immediately north of the expansion area, in the Water Conservation Areas.

It is critical, in order to properly manage and to ensure hydrological continuity, that the expansion area be fully part of the Park and that it not be given any status less than "Park." This would totally abrogate the whole purpose of this legislation.

There is some language that needs to be added to the bill as introduced and the House subcommittee considering the House version has already adopted a package of amendments to do this. This would provide for flood protection for an 8.5 square mile residential area in the East Everglades which will otherwise be subject to flooding by the change in the water delivery system. The Governor's Task Force recommends this flood protection, as does the draft General Design Memorandum being prepared for this project by the Corps of Engineers. In addition, protection for the agricultural area known as "The Frog Pond" is included, should it be determined that water levels raised as a result of this legislation are causing an adverse impact on this area. Also, language providing for a hydrological transition zone and for assurances for the Dade County wellfield must be added. Last week, the House National Parks and Public Lands Subcommittee approved the House version of this bill with these amendments and I am hopeful that the full Interior and Insular Affairs Committee will act on it this week. Because of House rules, the amendments will then be referred to the Public Works and Transportation Committee since these items fall within its jurisdiction.

Title II of this legislation provides for the upgrading of Ft.

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Jefferson National Monument to a National Park and for a study to determine whether it should be expanded. Ft. Jefferson is one of the most under-rated facilities in the National Parks System. It has both historical and ecological values and deserves far greater recognition and protection than it has received to date. A Civil War-era fort in the Dry Tortugas Islands, 70 miles from Key West, Ft. Jefferson was the site of the incarceration of Dr. Samuel Mudd, who treated John Wilkes Booth after the assassination of President Lincoln. While there, Dr. Mudd treated victims of a yellow fever outbreak. In addition, the fort and its neighboring islands are nesting sites for a number of species of birds, while the surrounding waters provide habitat for a wide variety of marine life.

The operations of the fort have been badly neglected by the Park Service. As a result, it is falling into physical disrepair and the natural resources there are not receiving the attention they need and deserve. I recently asked the House Interior Appropriations Subcommittee to provide an additional $150,000 a year for the fort's operating budget to permit the addition of resource protection personnel to the staff. However, upgrading of the fort to park status would remove it from its present position as a virtual stepchild of Everglades National Park and the study to expand the boundaries would give us additional information on the protection needs of the surrounding waters, reef tracts and fisheries.

Mr. Chairman, I again want to thank you for the serious attention and time you are giving to this legislation. I know you are aware of the problems and I commend you for your determination to help resolve them. I think this bill is the way to do it.

Senator BURNS. Thank you very much, Senator Graham. Now, is the red line on the map the present boundary? Is that correct?

Senator GRAHAM. This is the current boundary of the park, and this orange area is basically the area to be added, approximately 100,000 acres.

The acquisition will be under the same formula that has been used for the Big Cypress preserve. The state will dedicate the state-owned land, which is about 40,000 acres. The balance will be purchased, 20 percent with state money and 80 percent federal money. That is the same formula that was used for the Big Cypress preserve.

Senator BURNS. I am not familiar with the area down there, so does that buffer—these added acres, do they serve as a buffer to any land, or would it impact any growth of a metropolitan area? I do not know what the gray area is up there.

Senator GRAHAM. The gray area represents either urban or agricultural land. We have the representative of Dade County who will be here today and can testify, Mr. Tony Clemente, to testify on the Dade County master plan. But this represents essentially the boundary which has been established by the local government and the state as the demarcation between Everglades National Park and urban and agricultural use.

Senator BURNS. I have no other questions.

Senator Wirth.

Senator WIRTH. Senator Graham, thank you. I thank you for the very good bipartisan work that has been done on this. It is extremely unusual, as you know, to have a land program in front of this committee that has this kind of broad support, and you and your colleagues are certainly to be commended.

The resistance to this that you suggested comes from people who are concerned about hunting, and you said that they, in fact, this has been more than made up for by the additions of Big Cypress and elsewhere. Where are there other pockets of resistance, if there are any?

Senator GRAHAM. First, I want to underscore that we are talking now about legislation which has very broad support. And so when you talk about pockets, I think we are talking about watch pockets.

Senator WIRTH. I used the word advisedly, not saying concentrations. I said pockets. The whole Florida delegation, Republicans and Democrats, support this legislation, is that right?

Senator GRAHAM. That is correct. There are some issues relative to the protection of some existing urban and agricultural areas that might be affected by this water flow. At the current time the water flow into this area is controlled by a series of structures, dams and dikes and such.

One of the proposals here is try to reestablish the more natural water flow that existed in this area because of its importance to continuing the natural system of the Everglades itself.

There has been some concern that the restoration of that natural flow might affect these areas in here which contain some residential and agricultural uses, and the amendment that I alluded to which will be suggested to the committee when you proceed to mark-up will provide for the adequate protection of these areas and is an amendment which was contemplated by the governor's task force and which is being developed in the same collaborative spirit as the bill itself.

Senator **Burns**. Would the Senator yield on that point?

Would you mind taking over as chairman?

We have some votes on a mark-up over in the Commerce Committee. Would you take over until Senator Bumpers comes?

Senator **Wirth** [presiding]. I appreciate it very much, Senator Burns. You are arriving at a good hour this morning. We all appreciate it, particularly Senator Graham.

Senator **Burns**. Thank you very much. Thank you, Senator.

Senator **Wirth**. Thank you very much, Senator Graham. Once again I hope that we can accomplish this very rapidly.

As one member of the committee, I think this makes an enormous amount of sense. I really appreciate your help and that of the whole delegation. Thank you very much.

Governor Martinez.

[No response.]

Governor Martinez is not here this morning.

Senator **Graham**. Mr. Chairman, I would like to point out that the legislature is now in a special session, and it is possible that the Governor is detained for that reason.

Senator **Wirth**. Fine. We will keep the record open for any statement that the Governor might wish to add for the record.

Mr. Morehead.

Mr. Morehead, you are familiar with the rules of the committee, and we would ask you to summarize your testimony, perhaps to—if there was anything in your testimony that is different from what has been reflected by—and you were here for Senator Graham's testimony—if there are any changes or items that we ought to be familiar with in particular in your statement. Your statement will, of course, be included in the record.

STATEMENT OF JOHN M. MOREHEAD, ASSOCIATE DIRECTOR FOR OPERATIONS, NATIONAL PARK SERVICE, DEPARTMENT OF THE INTERIOR, ACCOMPANIED BY MIKE FINLEY, SUPERINTENDENT, EVERGLADES NATIONAL PARK

Mr. **Morehead**. Thank you, Mr. Chairman. My name is Jack Morehead. I am the Associate Director for Operations for the National Park Service. With me this morning is the Superintendent of Everglades National Park, Mike Finley. Our prepared statement has been submitted for the record, and with your permission, I will briefly summarize.

Mr. Chairman, S. 724 would add approximately 110,000 acres on the northeast side of Everglades National Park. The land consists of 75,000 acres in private ownership, and 35,000 acres of State land.

The State land, as Senator Graham said, is to be donated. We estimate the cost of acquiring the private land at approximately $32 million.

The Administration strongly supports this bill. It is needed to maintain a natural flow of fresh water into the East Everglades. We further support a congressional authorization to modify the existing Corps of Engineers project works so that water will flow naturally into the park.

Superintendent Finley can describe to you the importance of these lands and mention any items that the Senator might have missed.

Mr. **Finley**. Mr. Chairman, I will not repeat the fine discourse that Senator Graham gave in discussing this with you.

I would like to point out to the committee one of the reasons for the public works amendment that is critical to this project. As you can see, Shark River Slough originally flowed for about 20 miles in width.

In 1962 the U.S. Army Corps of Engineers through some public works projects, constructed these L-67 twin canals and levies to form the water conservation areas, actually formed a funnel. So, what you see here today is a funnel that took 20 miles worth of water and funneled it down into 10 so that in Everglades National Park we receive too much water volume through this western half within the park. In fact, last year we lost 50 percent of our alligator reproduction because the nests were smothered. There was no gas exchange between the eggshells.

The public works amendments seek to correct that situation by breaching these canals up here, reaching this roadway, and restoring the slough in function and form similar to what it was pre-1962.

The only other thing I'd like to mention for your consideration is the values out here to be restored and to be recovered include a federally endangered species, the woodstork. This area to be restored and to be included in the park represents 35 percent of the historic feeding range of the woodstork.

It has crashed in the park from about 2,350 or 75 nesting pairs in the 1950s to less than 375. Last year we lost all of our woodstorks. They died in their nests of starvation. This year we've lost half the population, and we are unsure about the rest. So, we have a number of fauna that are in a death spiral.

By restoring this we would also protect the remaining five Florida panthers. We have captured and collared seven Florida panthers and other endangered species. We had seven in 1987. We are down now to five that are collared. Four or five of them use this area alternately. One Florida panther in particular, the only male panther left, uses this area as his territory.

So, it's critical for the Cape Sable Sparrow, which is an endangered species; the Florida panther, which is an endangered species; the woodstork, which is an endangered species; and the fourth endangered species, the Everglades kite, which will also receive benefit by restoring these wetlands.

So, this project, in summary, is a mitigation project to recover and mitigate the damage from the public works construction, and it is also a restoration project.

Mr. Chairman, that completes our presentation. We would be very pleased to respond to questions that the committee might have.

[The prepared statement of Mr. Morehead follows:]

STATEMENT OF JOHN M. MOREHEAD, ASSOCIATE DIRECTOR FOR OPERATIONS, BEFORE THE SUBCOMMITTEE ON PUBLIC LANDS, NATIONAL PARKS AND FORESTS, OF THE SENATE COMMITTEE ON ENERGY AND NATURAL RESOURCES, CONCERNING S.724, A BILL TO MODIFY THE BOUNDARIES OF THE EVERGLADES NATIONAL PARK AND TO PROVIDE FOR THE PROTECTION OF LANDS, WATERS, AND NATURAL RESOURCES WITHIN THE PARK, AND FOR OTHER PURPOSES.

June 20, 1989

Mr. Chairman, I appreciate this opportunity to provide your Subcommittee with testimony on S.724, a bill to expand and further protect Everglades National Park.

Mr. Chairman, we urge swift enactment of the bill if it is amended as I will describe later in my testimony. Specifically, we endorse the bill's addition of 110,000 acres to the National Park System in South Florida; we endorse the need to provide enhanced protection to Everglades National Park; and we endorse the establishment of a Federal/State partnership for land acquisition. The amendments we propose will enable us to more quickly reach the resource protection and stewardship goals we share with the State and with the sponsors of the legislation.

The Committee should be aware that restoration of water flows to the park requires a two-fold solution: Modification of existing structures and operating plans that currently control the delivery of water to the park; and acquisition of the lands that would, as a result, be flooded. S.724 addresses the acquisition part. The Congress will need to address the water management portion through appropriate authorizations preferably in this legislation. The Administration's support for S.724 is contingent upon this issue being resolved, because acquisition of the additional land for the park will accomplish little or nothing in terms of protecting and enhancing wildlife habitat — unless the natural flow of water to this area can be restored. Finally, we note that there are important issues regarding the quality of water entering the park, as well as the quantity of water.

The Federal government has a long standing commitment to resource protection in South Florida. The Department of the Interior's two chief preservation-oriented land managing bureaus -- the National Park Service and the Fish and Wildlife Service — together manage 9 separate units totalling 2,097,600 million acres of Federal land. The Department has supported substantial additions to both our parks and our refuges in recent years; this includes the creation of a new Florida Panther Wildlife Refuge, a new Ten Thousand Island Wildlife Refuge, expansion of the Key Deer Refuge, and a 128,000 acre expansion of Big Cypress National Preserve. This aggressive expansion program has resulted in the commitment of more than $57 million for the acquisition of Federal conservation lands to protect important resources in South Florida.

We see further opportunity to work jointly with the State to protect South Florida's nationally significant resources for this and future generations of Americans. And we are prepared to act in concert with Congress in doing it. Everglades National Park is the second largest national park in the lower 48 States. It includes pine forests, cypress forests, sawgrass prairies, fresh water rivers, spectacular beaches, and pristine estuaries. The park, established in 1947, has achieved both national and international recognition. It has been designated a World Heritage Site and an International Biosphere Reserve by the United Nations, and a Wetland of International Importance by its Convention on Wetlands. It is home to 13 endangered species.

Located 35 miles from Miami, and within 65 miles of 3.5 million people, the park plays a significant role in the economy and quality of life in South Florida. The wetlands within the park serve to recharge the Biscayne aquifer that provides drinking water for South Florida. These same wetlands nourish and sustain the unique wildlife populations within the park which range from the American crocodile and West Indian manatee to the Florida panther and endangered woodstork. In addition, these wetlands nourish and sustain the marvelous estuaries on the Gulf coast and in Florida Bay which directly benefit and support commercial fishing interests and harvests outside the park at an estimated $100 million a year.

The park in under severe stress, due to land use and water management practices external to the park. For example, current populations of wading birds, such as woodstork, herons, ibis, and egret, are at less than 10 percent of historic levels.

Further illustrating this decline in the park is a 50 percent decline in the Roseate Spoonbill population since the 1980 census and a decline in the woodstork population from 2370 nesting pairs in the 1960's to 374 pairs in 1987. Moreover, during the last 2 years there has been no production from woodstork nests, as the managed water level was too high for the adults to successfully retrieve fish to feed their young. During the 1980's the park has also witnessed a continuing decline in the alligator reproduction. In 1988, approximately 50 percent of the alligator nests were flooded and destroyed by surplus water deliveries.

The fish populations both in the marshes and estuaries are under stress and occur in much reduced densities. The Florida panther is under extreme stress with a total population within the State estimated as between 30 and 50. Within Everglades National Park, the panther population has declined from 7 known animals in 1987, to 4 in 1989, with only one male panther known to be remaining in the park population.

The bill as introduced provides authority to acquire pursuant to a State/Federal partnership approximately 110,000 acres of the Northeast Shark River Slough currently outside the park boundary, with the State donating 35,000 acres and the Federal government acquiring 75,000 acres. The eastern portion of the Shark River Slough is critical to the efforts to mitigate the current damaging release of excess water to the park through the western portion of the Shark River Slough through structures adjacent to the current park boundary. It is our understanding that acquisition of the eastern portion of the Slough will allow the release of water over an additional 10 miles of wetlands where it historically flowed.

The restoration of the eastern portion of the Shark River Slough will also allow the restoration of the western portion of the Slough, thus significantly increasing traditional habitat conditions. Life in the park thrives on the traditional seasonal drainages from wetland, to dryer land with pools of water, with the receding and expanding edges of wetness running the eastern and western boundaries the length of the Slough. Since 1962, water in the western portion has often been too deep, and the eastern portion has often been too dry. Wetlands, and variations in wetlands, are especially critical to life at the simpler end of the food chain, and for supporting reproduction of larger wildlife species.

The authorities provided by the bill under Subsection 102(c), Acquisition, are generally consistent with other legislation enacted for additions to the park system. Section 102(c)(1), provides that notwithstanding any other provision of law the Secretary may exchange approximately one acre of Federal land known as Gilberts Marina for non-Federal land of equal value within the boundaries of the proposed addition. This provision is necessary to resolve a longstanding trespass on Federal Wilderness, inadvertently constructed at least 12 years ago. The Department advocates a more aggressive effort of seeking "land donations" in the East Everglades, as much of this land is not suitable as homestead sites to the current owners.

Subsection 102(g) provides authority to the Secretary to utilize National Park Service land acquisition personnel and practices to assist the State in acquisition of environmentally sensitive lands outside the park addition but within the Kissimmee River/Lake Okeechobee/Everglades/Big Cypress hydrologic basins. This authority was requested by the State of Florida to supplement their land acquisition efforts. In essence, the Secretary, upon request of the Governor, would act as an agent for the State, utilizing State funds to purchase lands that are determined by the Secretary to be consistent with the Federal interest within the previously described hydrologic basins. In addition, the Department urges reciprocal assistance from the State to facilitate the costly and time consuming title and land surveys that will be required.

Subsection 103(c) of the bill reaffirms the prohibition on airboat use within Everglades National Park, however, existing private airboat use within the addition would be grandfathered in and phased out with the individual current owners. Airboats would be limited to marked trails.

Subsection 103(d) provides continued public access by commercial airboat operators within the proposed addition. The bill would authorize the Secretary to grandfather existing operators as concessioners under the Concessions Policy Act.

Subsection 103(e) of the bill directs the construction of a visitor center at Everglades City, Florida, in commemoration of the vision and leadership shown by Mrs. Marjorie Stoneman Douglas in the protection of the everglades and Everglades National Park. Mrs. Douglas is well known in the United States for her outstanding conservation efforts and for her noteworthy book, The River of Grass.

We recommend that this provision be deleted. Funding for such a facility is a lower priority than other pressing needs to rehabilitate existing NPS system facilities to protect the health and safety of park visitors. Should funding become available, we would prefer to construct such a visitor center under existing authority. This would provide flexibility in locating the facility to ensure that it would serve the greatest number of visitors with the least adverse impact on the park. If we build such a facility, we would be pleased to dedicate it to Mrs. Douglas.

Mr. Chairman, as noted at the beginning of my statement, we believe the bill should be amended in order to speed the restoration of a more natural water regime to the park than is envisioned by the bill and to better meet our stewardship responsibilities.

Furthermore, we wish to bring to the attention of the Committee the distinction between management of a park and management of a preserve. A park is managed to provide adequate protection of the resources and to provide for their enjoyment by the public. Activities such as fishing, birdwatching, and canoeing are allowed, while hunting and trapping are prohibited unless specifically spelled out in the legislation establishing the unit. A preserve is also managed for the protection of resources but the range of permitted public activities to enjoy them is normally wider. For example, activities such as hunting may be permitted if they do not jeopardize the natural values. Should the Congress ultimately decide to designate this unit as a park, this action should be done with this in mind and that the public be fully cognizant of the distinction.

The planning process to implement this legislation, if enacted, will take into account the possible impacts on the Miccosukee and Seminole tribes in the area.

Finally, Mr. Chairman, the bill should be amended to provide for a more equitable division of the acquisition costs between the Federal government and the State than the present 80 percent Federal/20 percent State apportionment. As I outlined earlier there has been a substantial commitment of Federal funds for land acquisition in South Florida in recent years. Presently $10 million have been authorized to be appropriated to establish the Florida Panther Wildlife Refuge, and the Big Cypress Addition authorized by the last Congress will cost some $45 million. We estimate the Federal share under the 80/20 split to be $32 million. The Department currently has outstanding commitments valuing $55 million in the State of Florida. This is in the form of outright land acquisitions and exchanges. Therefore, given the current formula under the bill, the total Federal impact would add up to $87 million. Currently the FY 89 appropriation for Federal land acquisition for the entire national park system is $52 million. In order to seek a balance in the Federal allocation of dollars for resource protection we recommend that the formula be amended so that the State proportion be much greater than the current 20 percent. In fact, we strongly urge that the State pick up at least 50 percent of the total land acquisition cost of land not presently in public ownership and provide for the donation of all the land that is presently in public ownership.

Title II of the bill directs the Secretary to conduct a feasibility and suitability study of expanding and redesignating Fort Jefferson National Monument in the Dry Tortugas as Fort Jefferson National Park. We recommend that Title II be deleted. The normal management planning is adequate to assess growth and development in and around the Florida Keys and the documented impacts to Fort Jefferson's water quality, fisheries and reef tracts, and the degree of protection provided to the marine resources and submerged cultural resources.

This concludes my prepared remarks, Mr. Chairman. I will be pleased to respond to any questions you may have.

Senator **Bumpers** [presiding]. First of all, I would like to apologize to all the witnesses for being late this morning. I have probably never had a more legitimate excuse. We were about to have our first grandchild at our house, so we had late hours last night. Still do not have the baby here, but expect it momentarily, and I apologize, especially to the governor and Senator Graham for being late.

But, Mr. Morehead, I did not get a chance to hear your testimony, but I just want to say that I certainly generally support this, and I do not find an awful lot of controversy. One of the things that always causes controversy in my home state—and I would not think Florida is much different, and that is we do have a controversy between the environmentalists and the—for example, the airboat operators down there who want to continue to operate in the east Everglades. What side of that do you come down on?

Mr. **Morehead**. The compromise that we feel is very amenable and fair to both sides is to allow a grandfathering of existing airboat use in that portion of the northeast Shark River Slough. So, anyone who is using the area now—in particular the concession, the commercial operators in that area—would be grandfathered and that use would continue through their lifetime.

Senator **Bumpers**. How about hunting?

Mr. **Morehead**. Hunting would be prohibited, Senator.

Senator **Bumpers**. It is prohibited under the bill, is it not, as the bill was introduced?

Mr. **Morehead**. That is correct, sir.

Senator **Bumpers**. And this community—there is a community of 800 people nearby there, is there not?

Mr. **Morehead**. That is correct.

Senator **Bumpers**. What is the name of that community?

Mr. **Morehead**. That is the East Everglades homeowners' area.

Senator **Bumpers**. Where is that on the map?

Mr. **Finley**. Mr. Chairman, this roughly represents the current boundary. The proposal would bring it over here to take in the slough and would come down this canal. This gray area right here represents the eight and a half square mile residential area.

The legislation proposes a levy to flood-protect that, and then the boundary would come down like this.

Senator **Bumpers**. Show me on that map because I was not here, and I am sure you did before. Show me where the East Everglades is, the 107,000 acres we are talking about.

Mr. **Finley**. The boundary we are talking about as proposed in the bill would start here in this corner, the existing boundary of the park would go over to this canal at the eastern boundary, would follow this canal in a southerly direction down to the eight and a half square mile residential area.

There the legislation envisions a flood control project, a levee with a canal around those existing homeowners. The boundary excludes these agricultural lands shown here in gray. It comes down to this point and proceeds south.

From my pen here on south is the state-owned land to be donated. From this point north represents the acreage to be acquired from approximately 8,300 landowners.

Senator, this was originally sold as Florida sunshine sales, buy a chunk of south Florida. That is why you have so many landowners, and they are all over the world.

Senator **BUMPERS**. Land acquistion costs are estimated to be $32 million. Is that adequate?

Mr. **MOREHEAD**. We think it is, sir.

Senator **BUMPERS**. If we do not get done for another five years, would it be?

Mr. **MOREHEAD**. The price will definitely escalate.

Senator **BUMPERS**. Gentlemen, thank you very much. You are preaching to the saved. I favor the bill, and will do everything I can to hasten the passage of it through here.

As you know, really I think the bill will have almost unanimous support both in this committee and in the Senate. The problem always around here anymore, as you know, if it is for something that will not explode, it is hard to get the money for it. Thank you very much.

Mr. **MOREHEAD**. Thank you for your support.

Senator **BUMPERS**. Our first panel this morning is James Garner of the South Florida Water Management District, West Palm Beach, and Anthony J. Clemente, Assistant Manager, Metropolitan Dade County.

Welcome, gentlemen.

Mr. Garner, your name is first on my list, so why do you not proceed?

STATEMENT OF JAMES GARNER, SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Mr. **GARNER**. Thank you, Mr. Chairman.

It is a pleasure to be here this morning and support this bill, on behalf of the governing board of the South Florida Water Management District. We have previously submitted written testimony, and I will just attempt to summarize that as briefly as possible in the interest of time for the committee.

First, I would like to—well, we have brought and would like to have passed out to you some satellite photographs of the area, an 8 by 10 size. I think more graphically they depict what is happening in that area.

We wholeheartedly support this bill, the Governor's Task Force, and we want to thank Governor Martinez, and Senator Graham, and Representative Fascell for bringing forward this legislation.

If we could just take a moment and summarize what role the Water Management District plays in the area. In 1947 we had back-to-back tragic hurricanes in South Florida that inundated that part of the state for a great period of time. Congress in 1948 authorized the Corps of Engineers to build the Central and Southern Florida Flood Control District, and in 1949 the State of Florida created the South Florida Water Management District, which in those days was called the Central and Southern Florida Flood Control District, as the local sponsor.

The Corps into the early 1960s constructed what is that project. It is this project today that brings the water south and in many ways creates problems that we did not anticipate in the days that it was starting.

If I could just summarize a little further, in 1983, as Senator Graham had testified, and Superintendent Finley, about the need to re-establish the east Everglades or the Northeast Shark River Slough hydroperiod or sheet flow. In 1983 the district began that, to the best of our ability, and did begin to establish that sheet flow.

We entered into a very ambitious land acquisition program in the area. We have, to date, acquired over 17,000 acres of land in there at a cost in excess of $7 million; and that land, of course, would be put into this park expansion. In 1985 the district sponsored what we refer to as the rainfall-driven plan to re-establish the delivery of waters to the park that more nearly approximated natural rainfall, which we feel has been very beneficial to the park; and that program still goes on today.

We are very much in favor of this park expansion. We would like to call your attention to one problem that Senator Graham referred to, and in markup you will see an amendment to the bill that attempts to deal with the hydrologic problems of the park, and boundary being extended up to our neighbors or its neighbors to the east.

On the second page of the satellite photograph that shows the proposed addition, you will see that the boundary on the eastern side comes up immediately adjacent to the developed areas of South Florida. Along that area we have, and operate as part of the Central and Southern Florida Flood Control project, a series of canals that provide flood control and water delivery for South Florida for a great number of people.

By the very operation of this system as it was directed by Congress originally, we do create hydrologic impact on the adjacent lands. And the area that is now the proposed addition has been the buffer between the park and those hydrologic changes when the system is operated.

The amendment that Senator Graham spoke of and that exists now in the House version of the bill recognizes through the congressional legislation those hydrologic changes through the necessity of operation of the system so that we do not have a competing problem in the future. And our support is conditioned upon that amendment allowing us to continue to operate the system that we are mandated to do as Congress had authorized it to be operated and in conjunction with the Corps of Engineers' instructions. So I wanted to emphasize that.

Now, there is a second part of the amendment that deals with the Dade County proposed wellfield that I will let Mr. Clemente deal with, but it is also an hydrologic impact from a proposed wellfield for the citizens of Dade County. But with those two items being recognized in the amendment, we wholeheartedly support, both politically and financially, the expansion of this park.

And if I might briefly touch on the point that is not ours, but was raised earlier by yourself, Mr. Chairman, on the hunting values, hunting, I believe, as I understand it, is to be prohibited. In my brief time on the South Florida Water Management District I have had a number of opportunities to be in the Northeast Shark River Slough on district business. I am not sure that the hunting values there are worth the fight over it, given that the Big Cypress Preserve to the west of there has been expanded greatly with the hunting values.

So I will close with that one, unless there are questions from the committee, sir.

[The prepared statement of Mr. Wodraska follows:]

John R. Wodraska, Executive Director
South Florida Water Management District
Testimony before The Subcommittee on Public Lands, National Parks and Forests of the Senate Energy and Natural Resources Committee
June 20, 1989

Mr. Chairman and Members of the Sub-Committee:

Thank you for the opportunity to testify in support of what we consider landmark legislation for the people and resources not only of South Florida but of the entire United States. Our support for this legislation is contingent upon the inclusion of additional language that has been approved by all concerned parties, that recognizes the multipurpose objectives of the Central and Southern Florida Flood Control Project, and that is essential to the protection and well being of the people who work and live in South Florida.

Everglades National Park (ENP)(Park) was dedicated in 1947. Before the year was out, South Florida was hit by back-to-back hurricanes resulting in the worst flooding ever recorded in the State and leading Congress, in 1948, to authorize the Central and Southern Florida Flood Control Project (Project). The South Florida Water Management District (District) (then called the Central and Southern Florida Flood Control District) was created by the State in 1949 to act as local sponsor for the project. For the past 35 years, the Park's ecology has been dominated by an unavoidable dependence on the same civil works project that has allowed the cities and farms of South Florida to prosper.

During this time the District has evolved into a large multi-purpose agency that is often in the middle of decisions affecting the future of Florida's environment from Orlando to Key West. South Florida has also changed in ways, and at a pace, never expected by those who worked out the original decisions on the Park boundary. These early decisions are now recognized as critical limitations on the long term viability of the ENP ecosystem. At the same time, the C&SF Project has become the backbone of the region's water management infrastructure, not just for controlling floods but for supplying the water on which the people and commerce of South Florida depend.

Efforts to improve the hydrologic situation within ENP began almost as soon as the final water control structure along Tamiami Trail was completed in 1963. The District, the National Park Service and the U.S. Army Corps of Engineers (Corps) have been working in a concerted and cooperative effort to improve the water and environmental resources of Everglades National Park. Since the mid 1960s the District, reflecting the strong commitment of the people of South Florida, has been the lead agency in many efforts to enhance the environmental values of ENP.

In the late 1970s the District proposed, and with the cooperation of the Corps, built water diversion structures in the Miami Canal to promote sheetflow through the marsh north of the Park and improve the quality of the water that eventually flows into Shark River Slough. In 1983 our Governing Board began an initiative to reestablish sheet flow into Northeast Shark River Slough(NESRS), an area that is now proposed to be added to the Park. This was, and still is, a controversial program requiring a vigorous commitment on the part our Governing Board. A two year program of intense negotiation with adjacent landowners and step-by-step hydrologic improvements has resulted in the partial restoration of the historic flow through NESRS.

With the help of a unique state program begun in 1984 we have embarked on an ambitious land acquisition effort in the East Everglades adjacent to ENP. The District has purchased 17,292 acres of land at a cost of $7.32 million, and dedicated this land to the preservation of a buffer for the Park.

We have also developed advanced computer techniques in the area of hydrologic modeling and data acquisition and applied these to solving the problems of the Park. In 1985 the District pioneered a new concept in controlling water flow to ENP which we call the Rainfall Plan. We are going into the fifth year of this program which guarantees to the Park an amount of water that is a natural response to rainfall conditions upstream. A rainfall based water delivery system and the restoration of natural flow to NESRS are vital components of every proposal to protect the long-term health of ENP.

After 25 years of research, planning, land acquisition and construction it has become obvious that significant improvements necessary to ensure the future health of the Park must be based on correcting the serious shortcomings in the original Park boundary. We have gone as far as we can go without a major federal land acquisition effort and a significant revamping of the water control facilities necessary to restore the additional Park area. For this reason we are enthusiastic about this Bill and are willing to show our support with continued technical, political, and monetary support, as the local sponsor of the Federal public works necessary to achieve the water management objectives of the Park.

John R. Wodraska, Executive Director, SFWMD
Testimony - ENP Boundaries
June 20, 1989

While we endorse the concept of expanding Everglades National Park and have long pushed for public ownership of NESRS, there are several critical issues that must be a part of the federal legislation in any attempt to change ENP boundaries. An amendment has been drafted, which will be a very important part of this Bill for the people of South Florida. The language has been circulated, discussed and approved over the last several months by water managers, environmentalists and the National Park Service. It is our understanding that every group representing interests in South Florida affected by this legislation has agreed with the principles reflected in the amendment. Moreover, we feel that passage of this legislation without this additional language would create serious problems for the hundreds of thousands of Floridians who live and make their living in the region served by the affected District structures. District support for this Bill is contingent upon this language being part of the final Bill passed by Congress. The key elements from our perspective are:

1. **The continuing multipurpose nature of the C&SF project must be explicitly recognized in the bill.**

For most of the Park's history, undeveloped land has formed an effective buffer between the Park and the rest of South Florida. This expansion Bill will dramatically change that by incorporating most of this land into the Park and eliminating its role as the buffer between the Park's eastern boundary and more developed land to the east. Not only will agriculture be a direct neighbor to the newly expanded Park, but residential development will continue to expand and will occupy land adjacent to the Park. In many cases, the facilities of the District (often no more than a narrow canal) will be the only buffer between the Park and development.

We believe that the Park will benefit from the incorporation of this buffer area within the Park boundaries. However, these newly acquired lands are presently affected by the operation of the District's facilities. In order to fulfill the Congressionally mandated flood control and water supply objectives of the Project, the District's operations at times create hydrologic effects within the area that is to be included in the Park. Without clarifying language, enactment of the proposed legislation could create the possibility of inconsistent mandates between those controlling operation of the Project, as originally conceived, and those supporting the Park.

Accordingly, we urge Congress to take this opportunity to clarify the relationship between the Park and the Project with respect to the newly acquired property by inserting the following language from this amendment which we support:

> *(c) The expansion of the boundaries of the Park authorized hereby is taken in express recognition of the multi-purpose nature of the Central and Southern Florida Flood Control Project. Nothing in this Act shall be construed to limit operations of project facilities to achieve their original design objectives, as set forth in the Congressional authorization and any modifications thereto, provided, however, that the Corps shall operate the project in order to maximize the restoration of natural hydrologic conditions within the Park boundary in a manner that is consistent with achieving the other objectives of the project. Any changes to the operation of project facilities adjacent to the expanded boundaries of Everglades National Park, which deviate significantly from the original Congressional objectives of the project, and any modifications thereto, must receive the written concurrence of the National Park Service, in addition to complying with other federal statutes.*

We cannot support ENP expansion to our right-of-way line if it means that we must sacrifice the original purposes for which Congress authorized and funded the C&SF project. The Park Service has acknowledged that providing flood protection for developed property and providing enough water to meet the demands of South Florida's people and commerce is a project purpose that must continue after the Park boundary moves to within a few feet of the canal system.

The C&SF Project cannot be operated to achieve previous Congressional objectives without causing some unnatural hydrologic responses within the proposed Park expansion area. This has been well documented and is understood by all the major interest groups who have reviewed this Bill. It is essential that Federal legislation recognize this potential conflict. Congress should specifically express its intent to maintain these original project purposes in the future in conjunction with the expansion of Everglades National Park. In this way, the beneficial purposes of the Park expansion can be achieved consistent with the Congressional objectives for the Project.

2. **The final boundaries to be designated must not deviate significantly from the recommendations of the Governor of Florida's Task Force Report.**

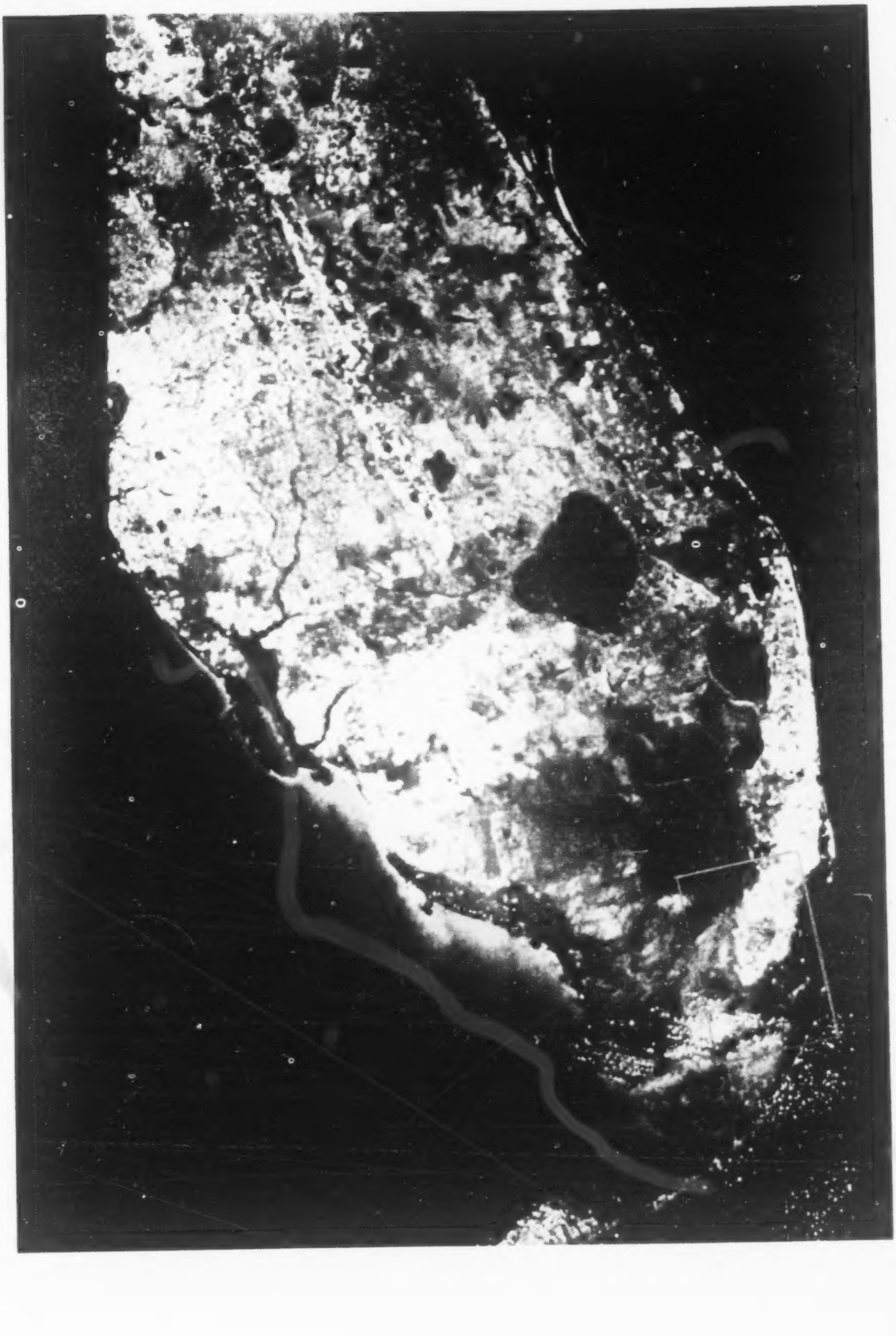
The Governor of Florida appointed a Task Force which deliberated for several months before recommending the boundary changes reflected in this Bill. Any significant deviation from that proposal could seriously jeopardize support for the Bill without adding meaningful benefit to Park resources. Several environmental groups have proposed the addition of property in the C-111 Basin, most of which is owned by District. This was specifically considered and rejected by the Governor's Task Force. There is no threat of development on this property. The C-111 Basin is presently the subject of intense public debate regarding flood control and environmental policy objectives for both the Park and developed areas in South Dade County. Until the water management issues are successfully resolved, it would be premature to consider any federal designation for this area.

3. **Construction, operation and land acquisition must proceed concurrently.**

Over the last four years, the Corps, the National Park Service, and the District have developed a plan to partially rehabilitate Shark River Slough by releasing water into NESRS in an attempt to restore the entire slough as an integral part of the hydrologic system of ENP. While the expansion of the Park boundary is important to protect ecological resources and preserve access for the public in the future, it is the implementation of specific structural elements that will restore the hydrologic functioning necessary to guarantee the long term health of the ENP ecosystem.

It is important that this federal legislation recognize the importance of these structural features to preserve the limited, but vital gains that have been realized with the interim water release program. The law must specifically allow for construction and operation of these water management facilities to go forward concurrent with the acquisition of the land in NESRS. The ENP cannot afford to wait for the final acquisition of the 8,000 separate parcels that comprise NESRS to receive the real benefit of this expansion. Nor can we risk putting the ongoing water delivery program in jeopardy.

Thank you for allowing me to appear before you today.



Senator **Bumpers**. Thank you very much.

Mr. Clemente.

STATEMENT OF ANTHONY J. CLEMENTE, ASSISTANT COUNTY MANAGER, METROPOLITAN DADE COUNTY, FL

Mr. **Clemente**. Good morning, Senator.

I was taught a long time ago that if you are preaching to those people who have been saved, keep it very brief, so I will just submit my statement for the record. However, let me, just for a little background, say that Dade County, which is the county which the expansion of the park is within, is approximately 2,000 square miles with approximately 2 million people, and it has 27 cities in it, of which Miami and Miami Beach are two of those cities. It is the only county in the United States that has two national parks abutting its boundaries, and also, it is one of the few counties in the United States that has a sole source aquifer, which is under the urbanized area of Dade County.

The expansion of the park is important to the county from two viewpoints. First of all, the County Commission unanimously voted in support of the expansion of Everglades National Park. In addition, the two cities closest to the park, Homestead and Florida City, also passed resolutions supporting the expansion of Everglades National Park.

In reacting to your point about it is hard to get money for something unless it explodes, to some degree there is a real concern that the explosion of Everglades National Park, in essence, the destruction, will occur unless the expansion of Everglades National Park occurs, in the sense that this area is very critical to ensuring the proper management and the life of the natural resources in Everglades National Park.

It is also very important to us in the viewpoint that this area is a primary recharge area for the Biscayne aquifer, which is again the primary drinking——

Senator **Bumpers**. What is the name of the aquifer?

Mr. **Clemente**. The Biscayne aquifer.

Senator **Bumpers**. Spell that. Are you saying pristine?

Mr. **Clemente**. Biscayne. Spelling is not one of my strong points. I am an engineer.

As such, again, we recognize the necessity to protect this area from urbanization. And the reality is that if urbanization occurs in this area, it is going to create greater demands for flood protection, which is in conflict with our desire to maximize water storage in that area, which is obviously an objective of the park. So, in a sense, there is a two-fold benefit as far as the expansion of this area, for the protection of the values that exist in the expanded area, the relationship with that area to the park.

We also feel that this area should be part of the National Park system in the sense that there is no realistic division between these two areas. So it would be simply a political line drawn through, in essence, a total ecological area; and you cannot properly manage this area with two different managing approaches as far as wildlife protection, as far as utilization of fires to control exotics.

In essence, again, the use of this area, as indicated earlier, is considered as a recharge area for our wellfields. The county is proposing to construct a wellfield outside the expanded area but nevertheless near it; and in relationship to that, we are recognizing that——

Senator BUMPERS. Is that the one there on Highway 997? Is that where you are proposing to put it, this well?

Mr. CLEMENTE. It is called the West Dade Wellfield. It is located near Kendall.

Senator BUMPERS. Okay. Go ahead.

Mr. CLEMENTE. And as such, you know, the county's wellfield, as a result of more and more use of that groundwater, is threatened from salt water intrusion, and also, since it is an aquifer that is on top of a coral limestone, any type of activity on the surface can contaminate that groundwater supply. So as such——

Senator BUMPERS. How deep is that aquifer?

Mr. CLEMENTE. It varies. It goes down to approximately 200 feet along the urban coast. And it is a wedge aquifer, so as you come out to the Everglades, it basically comes up to the surface. The aquifer is exposed—it comes to the surface during the rainy season. It is exposed by a canal system that provides for drainage and recharge of that aquifer.

Senator BUMPERS. So the Everglades actually feeds that aquifer.

Mr. CLEMENTE. Yes.

Senator BUMPERS. Is that Miami's sole source of water?

Mr. CLEMENTE. Yes, sir, it is. It has been declared a sole source by EPA.

Senator BUMPERS. Has that aquifer shown any signs of depletion in the last few years?

Mr. CLEMENTE. No, sir. We received, on the average, about 60 inches of rainfall a year.

Senator BUMPERS. How much?

Mr. CLEMENTE. Sixty inches.

Senator BUMPERS. You have been awfully short lately, though, have you not?

Mr. CLEMENTE. We go through cycles, one- and ten-year cycles. We are going through a dry period right now.

The aquifer is recharged from the water conservation areas in Lake Okeechobee as a backup storage. But our primary goal is to be self-sufficient as far as utilization of that aquifer.

Senator BUMPERS. Are the fires out down there? You had a lot of fires last summer.

Mr. GARNER. We are still having fires. They are better than they were, but we are still having fires.

I might point out to the committee, since January of this year there have been daily releases from Lake Okeechobee into the Biscayne aquifer area for recharge. That is the backup source.

Senator BUMPERS. Okeechobee?

Mr. GARNER. Okeechobee, yes.

Senator BUMPERS. Have you had some relief recently in rainfall down there?

Mr. GARNER. Yes, sir. It was raining when we left yesterday, so the rainy season is on us.

I think that the problem that we are going to have this year, sir, is if we do not have more than average rainfall, we are going to go into next year with a deficit of water supply in the area. If the Good Lord blesses us with more than average, we will recover.

Senator **BUMPERS**. I interrupted you, Mr. Clemente. Were you finished with your testimony?

Mr. **CLEMENTE**. Yes, sir.

[The prepared statement of Mr. Clemente follows:]

TESTIMONY RELATING TO EAST EVERGLADES ACQUISITION BEFORE THE SENATE ENERGY AND NATURAL RESOURCES COMMITTEE

ANTHONY J. CLEMENTE
(JUNE 20, 1989)

I WAS DIRECTOR OF THE LOCAL ENVIRONMENTAL RESOURCES MANAGEMENT PROGRAM IN DADE COUNTY FOR 8 YEARS AND AM NOW AN ASSISTANT COUNTY MANAGER, WITH OVERSITE OF THE VARIOUS COUNTY DEPARTMENTS CONCERNED WITH MANAGEMENT OF GROWTH. AS A PUBLIC EMPLOYEE CHARGED WITH PROTECTING THE NATURAL ENVIRONMENT OF DADE COUNTY, IT HAS BEEN MY RESPONSIBILITY TO ENSURE THAT URBAN PRESSURES DO NOT ADVERSELY IMPACT THE RESOURCES CRITICAL TO EVERGLADES NATIONAL PARK AND THE OVERALL EVERGLADES ECOSYSTEM. AS A LONG TIME RESIDENT OF SOUTH FLORIDA, IT HAS BEEN MY PERSONAL CONCERN THAT THE EVERGLADES ECOSYSTEM, RECOGNIZED AS A GLOBALLY IMPORTANT RESOURCE, BE RESTORED TO A HEALTHY CONDITION AND PROTECTED TO THE MAXIMUM EXTENT POSSIBLE. DADE COUNTY BELIEVES THAT THE PROPOSED EXPANSION OF EVERGLADES NATIONAL PARK IS AN ESSENTIAL STEP IN ATTAINING RESTORATION AND MAXIMAL PROTECTION OF THE EVERGLADES ECOSYSTEM. I AM THEREFORE HERE TODAY TO OFFER DADE COUNTY'S STRONG SUPPORT FOR THE PROPOSED EVERGLADES NATIONAL PARK EXPANSION BILL. THIS SUPPORT IS EMPHASIZED IN A RESOLUTION, ADOPTED UNANIMOUSLY BY THE BOARD OF COUNTY COMMISSIONERS ON MAY 16, 1989, WHICH STRONGLY ENDORSES EVERGLADES NATIONAL PARK EXPANSION. IT SHOULD ALSO BE NOTED THAT THE TWO MUNICIPALITIES IN DADE COUNTY LYING CLOSEST TO THE NATIONAL PARK, THE CITY OF HOMESTEAD AND THE CITY OF FLORIDA CITY, HAVE ALSO PASSED RESOLUTIONS ENDORSING THE PARK EXPANSION. COPIES OF ALL THESE RESOLUTIONS HAVE BEEN DISTRIBUTED TO THIS COMMITTEE.

DURING MY YEARS OF SERVICE TO DADE COUNTY I HAVE SERVED ON A NUMBER OF SPECIAL COMMITTEES AND TASK FORCES THAT IN ADDITION TO EVALUATING THE EXISTING AND POTENTIAL IMPACTS TO THE EVERGLADES

ECOSYSTEM, ALSO RECOMMENDED WAYS TO AMELIORATE THESE THREATS. IN PARTICULAR, DURING 1979-1980 I WAS A PARTICIPANT IN THE EAST EVERGLADES RESOURCES PLANNING PROJECT. THIS WAS A FEDERALLY FUNDED PROJECT, UNDER SECTION 208 OF THE CLEAN WATER ACT, CHARGED WITH THE RESPONSIBILITY TO DEVELOP A COMPREHENSIVE MANAGEMENT AND REGULATORY PLAN FOR THE EAST EVERGLADES AREA OF DADE COUNTY. IMPLEMENTATION OF THIS PLAN BY FEDERAL, STATE AND LOCAL AGENCIES WAS SUCCESSFUL IN LIMITING DEVELOPMENT OF THE EAST EVERGLADES AREA BUT DID NOT SOLVE MANY OF THE CRITICAL RESOURCE MANAGEMENT PROBLEMS THAT WERE ADVERSELY AFFECTING THE ECOSYSTEM. THEREFORE IN 1984, THEN GOVERNOR BOB GRAHAM ESTABLISHED THE EAST EVERGLADES RESOURCES PLANNING AND MANAGEMENT COMMITTEE TO ADDRESS THESE RESOURCE MANAGEMENT PROBLEMS. I WAS APPOINTED BY THE GOVERNOR TO THAT COMMITTEE. WE EMPLOYED A MULTI-DISCIPLINARY APPROACH TO ANALYZE ALL THE CRITICAL BIOLOGICAL AND HYDROLOGICAL NEEDS OF THE EAST EVERGLADES AND ITS RELATIONSHIP TO EVERGLADES NATIONAL PARK. A CONCLUSION OF THIS COMMITTEE WAS THAT UNLESS IMMEDIATE AND POSITIVE ACTIONS WERE TAKEN TO PROTECT THE RESOURCE, THE RAPID DECLINE IN ECOLOGICAL QUALITY OCCURRING WITHIN THE NATIONAL PARK WOULD CONTINUE. ONE OF THE PRIMARY RECOMMENDED ACTIONS WAS THAT THE EAST EVERGLADES AREA SHOULD BE PUBLICLY ACQUIRED FOR PROTECTION OF THE PARK AND TO ALLOW RESTORATION OF NATURAL SURFACE WATER FLOWS TO THE PARK.

IN 1988, GOVERNOR BOB MARTINEZ ESTABLISHED THE EAST EVERGLADES ACQUISITION TASK FORCE WHOSE PRIMARY PURPOSE WAS TO DEVELOP A PLAN TO CARRY OUT THIS RECOMMENDED ACQUISITION. I ALSO SERVED ON THIS TASK FORCE.

THE RECOMMENDATION THAT THE EAST EVERGLADES BE INCLUDED IN AN EXPANDED BOUNDARY OF EVERGLADES NATIONAL PARK WAS BASED ON THREE FACTORS. FIRST, RESTORATION OF THE EVERGLADES ECOSYSTEM IS DEPENDENT UPON AN ABILITY TO RESTORE THE NATURAL HYDROLOGICAL CONDITIONS THAT EXISTED PRIOR TO ALTERATION BY MAN. WE CAN NOT RESTORE NATURAL HYDROLOGICAL CONDITIONS WITHOUT THE RESTORATION AND PRESERVATION OF THOSE REMAINING AREAS OF THE NATURAL HISTORIC

FLOWWAYS UPSTREAM OF THE PARK. PROBABLY THE MOST IMPORTANT PORTION OF THE ORIGINAL FLOWWAY IS NORTHEAST SHARK RIVER SLOUGH WHICH ENCOMPASSES MOST OF THE EAST EVERGLADES AREA. THEREFORE RESTORATION AND PROTECTION OF EVERGLADES NATIONAL PARK CANNOT BE ACCOMPLISHED UNLESS THE EAST EVERGLADES AREA IS ACQUIRED AND SURFACE FLOWS ARE RESTORED THROUGH IT.

THE SECOND REASON FOR ACQUISITION RELATES TO PRIVATE PROPERTY OWNERSHIP IN THE AREA. ALTHOUGH THE EAST EVERGLADES IS ALMOST ENTIRELY WETLANDS, AND HAS A HIGH DEGREE OF ENVIRONMENTAL SENSITIVITY, IT REMAINS MOSTLY IN PRIVATE OWNERSHIP. OUR EXPERIENCE IN ADMINISTERING THE WETLAND REGULATORY PROGRAM HAS BEEN THAT PROTECTION OF THESE WETLANDS RESOURCES HAS GENERALLY REQUIRED INTENSIVE ENFORCEMENT TO ASSURE COMPLIANCE WITH THE STRINGENT LIMITATIONS ON PROPERTY USES IN THE AREA. IN ADDITION, EVEN LIMITED LAND USE ACTIVITIES BY THE OWNERS OF THESE PRIVATE LANDS WILL LIKELY GENERATE INCREASED DEMANDS FOR FLOOD PROTECTION, WHICH COULD ONLY FURTHER IMPEDE EFFORTS TO ENHANCE THE PARK. THEREFORE, ACQUISITION WOULD NOT ONLY BE A FAIR AND EQUITABLE MEANS OF BALANCING PRIVATE PROPERTY INTERESTS WITH THE PUBLIC'S INTEREST IN PROTECTING CRITICAL ENVIRONMENTAL RESOURCES, BUT IT WOULD ALSO PROVE TO BE COST EFFECTIVE OVER THE LONG RUN.

THE THIRD REASON FOR ACQUISITION IS TO ENSURE THAT THE EAST EVERGLADES RECEIVES OPTIMAL ECOLOGICAL MANAGEMENT. TO ACCOMPLISH THIS, IT IS IMPORTANT THAT THE PROPOSED ACQUISITION AREA SHOULD BE DESIGNATED AS A PART OF EVERGLADES NATIONAL PARK RATHER THAN AS SOME ALTERNATIVE DESIGNATION SUCH AS "NATIONAL PRESERVE" OR "NATIONAL RECREATION AREA". OUR MANY YEARS OF EXPERIENCE WITH EAST EVERGLADES MANAGEMENT PROBLEMS INVOLVING WILDFIRES, EXOTIC VEGETATION, ILLEGAL WASTE DISPOSAL AND THE MANAGEMENT OF FLORAL AND FAUNAL POPULATIONS HAVE ALL DEMONSTRATED ONE ABSOLUTE NECESSITY. THIS NECESSITY IS THAT THE EAST EVERGLADES MUST BE MANAGED IN THE SAME MANNER AS EVERGLADES NATIONAL PARK. YOU CANNOT, FOR EXAMPLE, HAVE DIFFERENT FIRE MANAGEMENT PROGRAMS OR DIFFERENT WILDLIFE MANAGEMENT PROGRAMS ON EITHER SIDE OF SOME

ARTIFICIAL JURISDICTIONAL BOUNDARY. WILDFIRES AND WILDLIFE DO NOT RECOGNIZE SUCH BOUNDARIES. WILDLIFE POPULATIONS, FOR EXAMPLE, CANNOT BE PROPERLY MANAGED INSIDE THE PARK IF THESE SAME POPULATIONS ARE SUBJECT TO HUNTING PRESSURES IN THE ADJACENT EAST EVERGLADES. THEREFORE THE ONLY PRACTICAL AND REALISTIC APPROACH IS TO MANAGE THE EXISTING EVERGLADES NATIONAL PARK AND THE PROPOSED EAST EVERGLADES ACQUISITION AREA AS ONE ECOLOGICAL UNIT. THE DESIGNATION OF THE ACQUISITION AREA AS "NATIONAL PARK" WILL ENSURE THAT THIS UNIFIED APPROACH IS TAKEN.

I WOULD LIKE TO EMPHASIZE THAT THE EAST EVERGLADES IS A PRIME RECHARGE ZONE FOR DADE COUNTY'S WATER SUPPLY BECAUSE IT OVERLIES THE BISCAYNE AQUIFER. THE EPA HAS DESIGNATED THE BISCAYNE AQUIFER AS A "SOLE SOURCE AQUIFER" BECAUSE IT IS THE ONLY SOURCE OF FRESHWATER FOR DADE COUNTY. THE BISCAYNE AQUIFER IS RECHARGED IN THE EVERGLADES AND MAINTENANCE OF AN ADEQUATE WATER SUPPLY IN THE AQUIFER DEPENDS UPON PROTECTION OF THE EVERGLADES. THEREFORE ACQUISITION OF THE EAST EVERGLADES AREA WILL GO A LONG WAY TO PROTECTING THE PUBLIC WATER SUPPLY FOR DADE COUNTY.

DADE COUNTY'S FUTURE WATER DEMANDS REQUIRE US TO DEVELOP A NEW REGIONAL WELLFIELD IN THE AREA. FOR THE LAST SEVERAL YEARS WE HAVE BEEN IN THE PLANNING PHASES OF DEVELOPMENT OF A NEW REGIONAL WELLFIELD TO BE LOCATED NEAR THE EAST EVERGLADES AREA. THE PROSPECTIVE WELLFIELD LOCATION HAS BEEN CHOSEN BASED ON A BALANCING ACT BETWEEN THE NEED TO LOCATE IT FAR ENOUGH AWAY FROM THE URBAN AREA TO AVOID GROUNDWATER CONTAMINATION SOURCES, AND FAR ENOUGH AWAY FROM THE EAST EVERGLADES AREA TO AVOID SERIOUSLY IMPACTING WATER LEVELS IN NORTHEAST SHARK SLOUGH. EVERGLADES NATIONAL PARK AND OTHER FEDERAL, STATE AND REGIONAL AGENCIES HAVE AGREED UPON THIS LOCATION AS THE MOST SUITABLE TO MAINTAIN THIS CRITICAL BALANCE. HOWEVER, EVEN WITH THIS LOCATION, THERE MAY BE SOME HYDROLOGICAL EFFECTS UPON THE EASTERN FRINGES OF THE NEW PROPOSED EXPANDED PARK.

THE GOVERNOR'S EAST EVERGLADES ACQUISITION TASK FORCE RECOMMENDED A RESPONSIBLE AND REASONABLE APPROACH TO THIS SITUATION. A TRANSITION ZONE IS PROPOSED FOR WELLFIELD IMPACTS WITHIN THE EASTERN FRINGES OF THE PROPOSED ACQUISITION AREA. WITHIN THIS TRANSITION ZONE, A LIMITED WELLFIELD DRAWDOWN WOULD BE ALLOWED. IN TURN, DADE COUNTY WOULD RECOGNIZE ITS RESPONSIBILITY TO IMPLEMENT STRINGENT WATER CONSERVATION MEASURES DURING DROUGHT PERIODS AT THE REQUEST OF THE SUPERINTENDENT OF EVERGLADES NATIONAL PARK. THIS WILL PREVENT ANY SERIOUS WATER LEVEL DRAWDOWNS FROM OCCURRING DURING THE TIME OF YEAR WHEN HYDRIC CONDITIONS ARE MOST CRITICAL TO THE PARK.

IT IS DADE COUNTY'S HOPE THAT THE BILL YOU ADOPT PROVIDES FOR THE NEEDS OF PROTECTING AND ENHANCING EVERGLADES NATIONAL PARK WHILE SIMULTANEOUSLY PROTECTING THE NEEDS OF THE URBAN WATER SUPPLY IN DADE COUNTY. I THEREFORE WISH TO REITERATE DADE COUNTY'S STRONG SUPPORT FOR PASSAGE OF THE EVERGLADES NATIONAL PARK EXPANSION BILL. I THANK YOU FOR THIS OPPORTUNITY TO APPEAR BEFORE YOU TODAY.

SENT BY:COUNTY MANAGER OFC ; 6-19-89 1:54PM ; 141234 202 872 1424;# 2

JUN 06 '89 12:57 CITY OF HOMESTEAD 342 P02

RESOLUTION NO. R89-05-19

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF HOMESTEAD, FLORIDA, ENDORSING THE EFFORTS OF THE UNITED STATES GOVERNMENT TO ADD APPROXIMATELY 110,000 ACRES OF THE "EAST EVERGLADES" TO THE EVERGLADES NATIONAL PARK.

WHEREAS, Governor Bob Martinez, Florida U.S. Senator Bob Graham and South Dade County's U.S. Representative Dante Fascell have jointly, in a bipartisan effort, backed a Federal Bill to add 110,000 acres of the East Everglades to Everglades National Park; and

WHEREAS, all parties agree the natural integrity of the Everglades ecosystem and of Everglades National Park is vital to the future of our community and region, the restoration of water flows in the Northeast Shark River Slough and related lands, closely duplicating natural patterns, is a necessary step in maintaining and restoring the integrity of the Park and its ecosystem; and

WHEREAS, such restoration can best be accomplished by incorporating certain properties in the East Everglades along with lands in the area now administered by the State of Florida into Everglades National Park, and members of the Florida delegation have jointly introduced legislation to authorize expansion of the Park, following recommendations of a special committee established by Governor Bob Martinez;

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF HOMESTEAD, DADE COUNTY, FLORIDA:

Section 1. That the City of Homestead expresses its support for the enactment of Senate Bill 724 and House Resolution 1727, companion measures now before the Congress of the United States authorizing the described expansion of Everglades National Park and that a copy of this Resolution be sent to the President of the United States, to Governor Bob Martinez, and to members of Florida's delegation to the United States Congress.

PASSED AND ADOPTED this 1st day of May, 1989.

J. W. DeMilly

J. W. DEMILLY, III
MAYOR

Barbara Shackelford

BARBARA SHACKELFORD, CITY CLERK

1925

Approved as to form & correctness:

MICHAEL E. WATKINS
CITY ATTORNEY

-- O

SENT BY:COUNTY MANAGER OFC ; 6-19-89 1:55PM ; 14123→ 202 872 1424;# 3

PROPOSED RESOLUTION 89-5

WHEREAS, Governor Bob Martinez, Fla. U.S. Senator Bob Graham and South Dade County's U.S. Representative Dante Fascell have jointly, in a bi-partisan effort backed a Federal Bill to add 110,000 acres of the East Everglades to Everglades National Park; and

WHEREAS, all parties agree the natural integrity of the Everglades ecosystem and of Everglades National Park is vital to the future of our community and region, the restoration of water flows in the Northeast Shark River Slough and related lands, closely duplicating natural patterns, is a necessary step in maintaining and restoring the integrity of the Park and its ecosystem; and

WHEREAS, such restoration can best be accomplished by incorporating certain properties in the East Everglades along with lands in the area now administered by the State of Florida into Everglades National Park, and members of the Florida delegation have jointly introduced legislation to authorize expansion of the Park, following recommendations of a special committee established by Governor Bob Martinez;

NOW, THEREFORE, be it resolved that the City of Florida City express its support for the enactment of Senate Bill 724 and House Resolution 1727, companion measures now before the Congress of the United States authorizing the described expansion of Everglades National Park and that a copy of this Resolution be sent to the President of the United States, to Governor Bob Martinez and to members of Florida's delegation to Congress.

PASSED AND ADOPTED by the City of Florida City, Florida this 9th day of May, 1989.

Otis T. Wallace
OTIS T. WALLACE, MAYOR

ATTEST: Willie Mae Shields
WILLIE MAE SHIELDS, CITY CLERK

Senator **Bumpers**. Gentlemen, I do not have any—I do not think I have any questions of you. Just a minute.

Mr. Garner, if you will briefly describe for me briefly again the two points of the amendment that you are concerned about.

Mr. **Garner**. The two points of the amendment are presently—there is an amendment in the House, and Senator Graham earlier spoke of one that you will receive in markup for the Senate bill. The first one deals with the hydrologic changes that are created by the operation of the Central and Southern Florida Flood Control System that, if you will look on the second page of the photograph, runs right along—in essence, runs right along the boundary of the park.

The real separation, once this bill is in place, between the park and the urban area will be a narrow canal that we operate. When we draw that down in anticipation of flooding events, or we change the stages in accordance with the flood control system, it creates hydrologic changes to the west into what will then be the park. Now there is a buffer area between the park boundary and that canal.

And all we want is that the amendment recognize those hydrologic changes as not being a degradation of the park, because we provide flood control for all of the people there in southeast Florida. That is, I think, pretty well agreed in compromise and is not controversial.

The second part dealt with Mr. Clemente's wellfield, the new wellfield that is proposed. And the cone of influence from that wellfield will extend into the park. And there are some limitations on the withdrawals in the amendment, but as long as they do not exceed the withdrawals basically, it will not be considered a degradation or impact on the park.

Senator **Bumpers**. Where does the west coast get its water, Naples, for example?

Mr. **Garner**. The west coast has an even worse water problem because of the lack of defined aquifers. There are several aquifer systems on the west coast. They are not particularly good, and they are very subject to saltwater intrusion. We have had water shortages throughout the winter and have been on restrictions on the west coast of Florida. This acquisition will not impact the west coast of Florida at all.

Senator **Bumpers**. Mr. Clemente, how many wells make a wellfield?

Mr. **Clemente**. It can be—we have a regional wellfield approach, so therefore, we can provide better protection as far as regulating land uses and activities within that area that the actual aquifer is used as a water supply. In this particular case, wellheads can be up to 10 million gallons a day; so if you are pumping 140 million gallons a day, you would have approximately 14 individual wells. The Northwest wellfield pumps 220 million gallons a day, and as such then it has 22 wellheads.

Senator **Bumpers**. Who else besides Dade County gets water out of this aquifer?

Mr. **Clemente**. Right now the county is a regional supplier of water for the urbanized area. I think it supplies about 80 percent of the population. There are still individual wells used for individual houses, in addition to farming and a lot of irrigation use. Three cities, I believe—the city of North Miami, the city of Homestead, and Florida City—also provide water to their citizens from smaller wellfields.

Mr. GARNER. The aquifer, Senator, goes all the way into Palm Beach County, all the way up.

Senator BUMPERS. How many gallons a day are taken out of that aquifer, do you know? Does anybody know in the audience?

Mr. CLEMENTE. I think out of Dade County it is approximately 350 million gallons a day.

Senator BUMPERS. Just for Dade County.

Well, gentlemen, thank you very much.

Our next panel, panel 2, is Cynthia Lenhart, Chairperson, Everglades Coalition; James D. Webb, Florida Regional Director of the Wilderness Society; and Charles Lee, Senior Vice President for Conservation, Florida Audubon Society.

Ms. Lenhart, your name is the first on my list.

Do we have someone missing here?

Mr. WEBB. I think Mr. Lee is missing, Senator Bumpers. We have not heard from him this morning.

Senator BUMPERS. Okay. Well, Ms. Lenhart, please proceed.

STATEMENT OF CYNTHIA R. LENHART, CHAIRPERSON, EVERGLADES COALITION

Ms. LENHART. Mr. Chairman, I am Cynthia Lenhart, a wildlife policy specialist with the National Audubon Society. I am also Chairperson of the Everglades Coalition, which is a group of about 25 national, state, and local organizations——

Senator BUMPERS. Are you with the Audubon Society and just a member of the Coalition?

Ms. LENHART. Right. I am the Chairperson of the Coalition.

Senator BUMPERS. Well, we will not miss Mr. Lee, then, will we?

Ms. LENHART. Well, he is Florida Audubon. I am National Audubon.

Senator BUMPERS. Oh, I am sorry. Okay. Go ahead.

Ms. LENHART. A slight difference there.

Today I am specifically here on behalf of the National Audubon Society, Defenders of Wildlife, Florida Audubon, Florida Chapter of the Wildlife Society, Friends of the Everglades, the Humane Society of the United States, National Parks and Conservation Association, the Sierra Club, and The Wilderness Society. These organizations strongly support the enactment of this legislation.

Mr. Chairman, the legislation before you concerns one of the most important ecosystems in the world. The uniques of Everglades National Park has been recognized with its designation as an international biosphere reserve and a world heritage site. It is home to more endangered species than any other national park.

The proposed addition to the park would make its boundaries more nearly reflect the natural ecosystem that was subdivided when the park was dedicated in 1947. In the past 50 years we have come to understand the hydrological and biological importance of the lands east of the park. With control over the headwaters of the Shark River Slough, the park for the first time will have some control over its own destiny. Instituting a more natural water flow through the park is critical to the continued viability of the Everglades.

The declining health of the ecosystem is perhaps most dramatically indicated by the plummeting numbers of wading birds, which were once so plentiful and are still symbolic of the Everglades. Populations of egrets, herons, ibis, and wood storks have declined by 90 percent since 1930. In the past two years the endangered wood stork has experienced complete reproductive failure in the park, because water has not been available when the birds need it.

Mr. Chairman, I would like to emphasize our strong support for the inclusion of these lands in Everglades National Park. We do not support any proposal which would provide less protection than park status. Management of the East Everglades under a separate set of values would only set up unnecessary conflict in an area that is integral to the park and its ecosystem.

We have three amendments to propose to this legislation. The first has been mentioned in previous testimony. It would authorize the Army Corps of Engineers to proceed with its modifications to its water delivery system as presented in its Shark Slough general design memorandum. This authorization is essential to the restoration of natural water flow to the park.

The second amendment would direct that the Corps of Engineers plan its modifications to the C-111 basis so that they enhance the natural resource values of Everglades National Park. The Corps should be directed to conserve the C-111 lands so that they remain suitable for possible inclusion in the park, if so recommended by the Secretary of Interior once the Corps' plan is complete.

A third amendment would add language to stress the need for appropriation of funds for monitoring and research related to the implementation of the Northeast Shark River Slough GDM. No doubt, the water delivery system will have to be fine-tuned along the way, and we must ensure that any changes made have a positive impact on the ecological integrity of the system.

Finally, Mr. Chairman, we note our dismay that this legislation would permit air boating to continue in the expansion lands, which are the summer nesting habitat of the endangered Everglades kite. Immediately north of the proposed park expansion area there are a thousand square miles of water conservation area where air boating is permitted.

It was difficult to persuade some of the organizations that signed on to this testimony that any air boating should be allowed in the expansion lands. However, these organizations do agree that if air boating is to be allowed, it should only be allowed as currently provided for in this legislation. Both right of the entry and the manner in which air boating is permitted clearly need to be under the control of the Park Service.

This concludes my statement. Thank you for the opportunity to express our strong support for this legislation.

[The prepared statement of Ms. Lenhart follows:]

THE EVERGLADES COALITION
801 Pennsylvania Ave., S.E.
Washington, D.C. 20003
202/547-9009

TESTIMONY OF CYNTHIA R. LENHART

CHAIRWOMAN

EVERGLADES COALITION

BEFORE THE

COMMITTEE ON

Energy and Natural Resources

SUBCOMMITTEE ON

Public Lands, National Parks and Forests

UNITED STATES SENATE

CONCERNING S 724

EVERGLADES NATIONAL PARK PROTECTION AND EXPANSION ACT OF 1989

ON BEHALF OF:

NATIONAL AUDUBON SOCIETY
DEFENDERS OF WILDLIFE
FLORIDA AUDUBON
FLORIDA CHAPTER OF THE WILDLIFE SOCIETY
FRIENDS OF THE EVERGLADES
NATIONAL PARKS AND CONSERVATION ASSOCIATION
SIERRA CLUB
THE HUMANE SOCIETY OF THE UNITED STATES
THE WILDERNESS SOCIETY

20 June 1989

Mr. Chairman, I am Cynthia Lenhart, a wildlife policy specialist with the National Audubon Society and chairwoman of the Everglades Coalition, a group of 28 national, state, and local organizations active on issues pertaining to the conservation of the Everglades ecosystem.

I am here today on behalf of: National Audubon Society, Defenders of Wildlife, Florida Audubon, Florida Chapter of The Wildlife Society, Friends of the Everglades, The Humane Society of the United States, National Parks and Conservation Association, Sierra Club, and The Wilderness Society. These organizations support the enactment of S. 724 with an amendment to expand the eastern boundary of Everglades National Park.

Mr. Chairman, the legislation before you concerns one of the most important ecosystems in the world. The uniqueness of Everglades National Park has been recognized with its designation as an International Biosphere Reserve and a World Heritage Site. It is home to more endangered species of plants and animals than any other national park.

We are pleased to note the bipartisan support this proposal has received thus far. We appreciate Governor Martinez' strong support of this initiative, and applaud the work of his East Everglades Land Acquisition Task Force. We commend the leadership and dedication of Senator Graham and Congressman Fascell in introducing this legislation.

The proposed addition of 107,600 acres to the park would make the park's boundaries more nearly reflect the natural ecosystem that was subdivided when the park was dedicated in 1947. In the past 50 years we have come to understand the hydrological and biological importance of the lands to the east of the park, now under consideration for inclusion.

The park, since its establishment, has had little control over its water supply, relying on the largess of plumbing technology "upstream". This legislation, by incorporating into the park the headwaters of the Northeast Shark River Slough -- the park's most important flow-way -- would allow the park, for the first time, to have some control over its own destiny.

Instituting a more natural water flow through the park is critical to the continued viability of the Everglades. The declining health of the ecosystem is perhaps most dramatically indicated by the plummeting numbers of wading birds, once so plentiful and still symbolic of the Everglades. Populations of egrets, herons, ibis, and wood storks have declined by 90 percent since 1930. In the past two years the endangered wood stork has experienced complete reproductive failure in the park because water has not been available when the birds need it. Alligator reproduction has also suffered from unnaturally high water during nesting season. The endangered crocodile and wading birds of Florida Bay will also benefit, as greater control over Shark River Slough can limit the need to flush excess water through the C-111 Basin into Florida Bay.

The legislation will not only benefit the park's inhabitants, but those of urban Miami and its environs. Acquisition of the East Everglades lands will help protect South Florida's drinking water supply, with the undeveloped wetlands serving to purify that vital resource.

In addition, we would like to suggest that the state-federal partnership proposed in this legislation is a model for natural resource protection efforts in this era of fiscal constraint. Some 40 percent of the lands to be added to the park would be transferred by the State of Florida, and the State would provide 20 percent of the funding for the remainder. The State of Florida, with this proposal, demonstrates its continued commitment to environmental protection.

Mr. Chairman, I would like to emphasize our strong support for the inclusion of these lands in Everglades National Park; we do not support a proposal which would provide less protection than park status. Management of the East Everglades under a separate set of values would only set up unnecessary conflict in an area that is integral to the park and the ecosystem.

The amendment we recommend concerns the Shark River Slough. The amendment would authorize the Army Corps of Engineers to proceed with modifications to its water delivery system as presented in the General Design Memorandum (GDM) of the Corps for Northeast Shark River Slough. This authorization is essential to restoration of natural water flow to the park.

Two additional amendments would enhance the effectiveness of this legislation. The first of these would direct that the Corps of Engineers plan its modifications to the C-111 basin so that they enhance the natural resource values of Everglades National Park. The Corps should be directed to conserve the C-111 lands so that they remain suitable for possible inclusion in the park, if so recommended by the Secretary of Interior once the Corps' plan is complete.

The second amendment would add language to authorize the appropriation of funds for monitoring and research related to the implementation of the Northeast Shark River Slough GDM. No doubt the water delivery system will have to be fine-tuned along the way, and we must ensure that any changes made have a positive impact on the ecological integrity of the system.

Finally, we note our dismay that S. 724 would permit air-boating to continue in the expansion lands, the summer nesting habitat of the endangered Everglades kite. Immediately north of the proposed park expansion area, there are a thousand square miles of water conservation area where air-boating is permitted. It was difficult to persuade some of the organizations that signed onto this testimony that any air-boating should be allowed in the expansion lands. However these organizations do agree that if air-boating is to be allowed, it should only be allowed as currently provided in S. 724. Both right of the entry and the manner in which air-boating is permitted clearly need to be under the control of the National Park Service.

This concludes my statement. The aforementioned organizations thank you for this opportunity to express strong support for this legislation. I would be glad to answer any questions you might have.

Senator BUMPERS. Thank you, Ms. Lenhart.
Mr. WEBB.

STATEMENT OF JAMES WEBB, FLORIDA REGIONAL DIRECTOR, THE WILDERNESS SOCIETY

Mr. WEBB. Thanks, Senator Bumpers.

My testimony has been submitted, and I think I would like to limit my remarks to some contextual ones. And that is, to point out the unique condition that exists where the Congress and others have participated in putting a great wilderness resource like Everglades National Park in the midst of a great water management effort like that of the Central and Southern Florida Flood Control project.

That means that unlike Yellowstone where you need to protect those headwaters and have a lot of decisions about Federal management to make, that here, the protection of the park implicates the authorities, duties, and responsibilities of a vast array of local interests, governmental and private. To make Everglades National Park successful means that we essentially have to successfully replicate natural conditions. You know places where that has been tried, and it is not easy. It is never easy. Here, it is very difficult and vastly important.

When you have the opportunity to simplify a task like that in an important way, you much advance the possibility that we will be successful at having a great human and a natural occupation of the Everglades region. To surround such a resource with a metropolis and to keep both of them alive and healthy is a task of a high order, and if you are successful in passage of this legislation, you will have advanced the ability of all of us who participate in that effort to meet our responsibilities and to have finally a resolution of these matters that will be a proper reflection of America's knowledge and spirit.

Thank you, Senator.

[The prepared statement of Mr. Webb follows:]

THE WILDERNESS SOCIETY

TESTIMONY OF JAMES WEBB, THE WILDERNESS SOCIETY, ON THE BILL S. 724, BEFORE THE UNITED STATES SENATE, COMMITTEE ON ENERGY AND NATURAL RESOURCES, SUBCOMMITTEE ON PUBLIC LANDS, NATIONAL PARKS AND FORESTS, JUNE 20, 1989.

Mr. Chairman, members of the subcommittee, I am Jim Webb, Florida Regional Director for The Wilderness Society. Founded in 1935, The Wilderness Society is dedicated to the wise management and protection of the nation's public lands. On behalf of our 300,000 members, I appreciate this opportunity to express our support for S. 724, and amendments necessary to realize the measure's basic intentions.

Those intentions are to secure the remaining natural values of the East Everglades against degradation and to restore natural processes and relations, where reasonably possible. Those ends require that the lands and waters involved be administered to the highest standard, and that the Congress include them, as nature does, within Everglades National Park.

The Nation determined, through you, to retain and protect natural conditions in the "heart" of the Everglades. We also determined, similarly through you, to create water control works permitting drainage and development of vast tracts of the Everglades system. There is no going back either on the Park or on the metropolis developed around it. There is no overestimating the care, ingenuity and initiative that is required to simultaneously accomplish a great human and natural occupation of the region. Success at that will be a triumph of the American character.

There is no end to the complexity of replicating essential natural processes disrupted by our works. There is an end to major opportunities for simplification -- opportunities that serve the best interests of natural Everglades and the region's human populations. One of those is before you today. It is the most important such opportunity to present itself since the establishment of the Big Cypress National Preserve in 1974. Its importance lies not just in resources to be protected by public acquisition, but in securing protection for Everglades National Park on its most pressing boundary. Learning, like the rest of us, from the unique experience of managing the Everglades, you have seized past opportunities to earn back their natural productivity and correct errors limiting their human benefits. We urge you to take this one.

To this time, protection of the East Everglades has been the responsibility primarily of our state and local institutions. Within the constraints of history and their authorities, they have done creditable work in preserving the opportunity before you. S. 724 is a culmination of their efforts, not just the product of conservationist concerns. Before you is not just a decision about natural resource protection, but an urban land use and water management choice fundamental to the future of the region.

1400 EYE STREET, N.W., WASHINGTON, D.C. 20005
(202) 842-3400

As we come to understand the tremendous energy behind urban growth in the region, it becomes clear to all that development will eventually occur to the boundary of Everglades National Park. The quality and wisdom of that development will remain largely in the hands of local authorities. The basic question for national action, therefore, is putting the boundary in the right place. S.724 does that, with a proper regard both for the wide benefits of natural management and for the practical limits on remaining opportunities for it. It describes the last best chance to increase the ecological security of the Park and protect regional water supplies. It provides the best long-term relationship between the public's lands and surrounding communities and interests. Our local government and water management authorities helped develop it as participants in Governor Martinez' task force on the East Everglades, and they support it in your measure.

The best eastern boundary for the Park is in the measure. It excludes developed lands wherever possible. It was carefully reviewed and unanimously supported by the task force. Because water management planning for undeveloped lands south of the proposed expansion -- the "C-111 Basin"-- was insufficiently advanced at the time, the task force made no recommendation for management of that area. That planning is now under way. We support an amendment to S. 724 that would help preserve the important natural values of the C-111 Basin, direct that lands in the area be studied for future inclusion in the Park, and require a recommendation to you on that prospect.

The proposed boundary adjoins works of the Central and Southern Florida project. We support an amendment making it clear that enactment of S. 724 will not limit proper operation of the project for established purposes. This provision, and the measure generally, makes maintenance of flood control benefits and protection of East Everglades and the Park easier to reconcile.

Near the proposed boundary, our regional water utility plans the development of a major well field. We believe the expanded park must accept a certain level of impacts from the operation of that field. We support an amendment that would provide criteria for keeping those impacts within acceptable limitations, and provide suitable conservation standards.

Restoration of natural water flows to the Park and the expansion area cannot be adequately done without construction of water delivery works described in the Corps' Shark River Slough plans. We support an amendment authorizing those works, and directing their purpose. That includes flood protection for the "8 1/2 square" mile area. That area and its need for flood protection illustrates the problem of development in the East Everglades, and the practical limits of local protection. The residents cannot be blamed for the unwise planning choices their presence represents. Flood protection for the contiguously developed area will cauterize some effects of those choices. It will permit residents and local governments to make better community development decisions, and avoid future conflict with the Park.

An amendment, accepted in the House subcommittee's mark-up of the identical H.R. 1727, authorizes works to prevent "adverse effects" in the area known as the "Frog Pond". We would like to make some clarifying observations about that language through your staff, before you consider it. The concerns we'd like to address now are, first, that the amendment in its present form may provide a physical remedy for such effects through construction of the works, and a money remedy for a separately stated "taking", both arising from the same facts. Second, the present form of the amendment imposes no effective economic or operational standards for the works to be authorized. Those should be developed and imposed before such an authorization is further considered.

In the House subcommittee's public hearing and mark-up, the most fractious issue appeared to be the concern, vigorously expressed by some, that expansion of the Park will eliminate hunting in the area. I think that such concern -- and its vigorous expression -- is somewhat beside the mark. Indeed, according to the Florida Game and Freshwater Fish Commission, the East Everglades is only marginally productive of game, and is far less significant as a hunting resource than Big Cypress National Preserve and the state water conservation areas to the north. I believe the clamor arises primarily from poor relations of hunters and ORV users with managers of the Big Cypress. There hunting is an important public use, recognized as an authorized purpose of the unit. Preservation both of hunting opportunities and other resources of the Preserve is an aim we share with organized hunters, and in which we value their place.

The East Everglades is an entirely different place. It does not offer a significant hunting resource. It will, quickly and inevitably, be the area of the Park with the most intense on-the-ground uses for other recreation. Because of its urban face, it will have institutional concerns of a much more complex and subtle order than does the Preserve. In those circumstances, unity of purpose, authority and action in its management is vital. After detailed consideration of alternatives, it is that fact, above all, that led our most experienced regional land and water management authorities, through the Governor's task force, to support inclusion of the area in Everglades National Park. Placing the area outside the National Park System, in the Refuge System for instance, raises a wide array of conflicts in objectives and actions. Even retaining it in the Park System and permitting hunting as in the National Preserves, fundamentally modifies management of the expansion area. Those are matters to be fruitfully addressed in the region's National Wildlife Refuges or in Big Cypress, where the character of the area and the resource justifies the work. The East Everglades functions naturally as part of Everglades National Park. The object of the measure before you is to remove man-made barriers to the integrity of those functions. Any variance between its management and the Park's inspired by narrow or symbolic concerns will prove a mistake.

We know the groups that support management of the East Everglades for hunting. They are, in the main, respected allies in the effort to protect environmental values in the Everglades system, particularly its waters. I fear that they misunderstand the particular problems of the East Everglades, and underestimate the extent to which authorization of hunting will impede their successful resolution.

The Wilderness Society supports expansion of Everglades National Park as a positive tool in the work I earlier described: creating a mutually compatible natural and human occupation of the Everglades. That is noble work, imposed on all public and private entities of our region. It is hard work for you and for all those who carry out the purposes you establish. Please do not make it harder by weakening the proposal before you. Please advance it by enacting the measure and its effecting amendments.

Thank you.

Senator **BUMPERS**. Thank you for your very fine statement, Mr. Webb. Ms. Lenhart, do you know why this area that you mentioned that you would like to see included, do you know why it was not included?

Ms. **LENHART**. In the original designation of the park?

Senator **BUMPERS**. Or in this legislation.

Ms. **LENHARD**. Oh, you mean C-111 lands.

Senator **BUMPERS**. Yes.

Ms. **LENHART**. I believe that Senator Graham and Congressman Fascell felt that the C-111 GDM should be further along in its process before those lands were included in the park.

Senator **BUMPERS**. Should be what?

Ms. **LENHART**. Further along in its planning process before those lands were included in the park. And we basically agree with that but we would like to include some language that would insure that the planning process considers the natural values of the ecosystem.

Senator **BUMPERS**. Do you know how many airboat operators there are in South Florida? Do you have any idea?

Ms. **LENHART**. I do not.

Senator **BUMPERS**. Do you know how airboat operators there are now operating on this 107,000 acres?

Ms. **LENHART**. There are folks here who are actively engaged in those activities, Senator, I think they are on the next panel and they can, doubtless, answer that directly. There are hundreds of airboats registered in the area. My experience is that most of the activity takes place north of the Tamiami Trail in conservation areas.

There are distinct airboat uses in this area. They are somewhat confined by lack of places to take them. This is—this has less continuous accessibility for airboats than the areas immediately to the north of it, but, it is significant use in the area.

It has historic value. It has established value to those uses and, in fact, the Park Service feels that carefully controlled of airboats in the area may provide visitor opportunities that are otherwise unavailable within Everglades National Park, itself, through concession operations.

Senator **BUMPERS**. I am reluctant to say this, but I took one of those airboat tours a couple of years ago. My family and I were spending a few days in Naples, that was along the Tamiami Trail, and I must confess I did not find it very scintillating.

I guess all the wildlife and waterfowl were hiding that day. We did not see much of anything. I do not mean to denegrate the experience, it is not all that bad; but I expected, I guess, my expectations were much too high for what I got out of it.

Ms. **LENHART**. Yes, but I have to tell you, sir, that it is more than the luck of whether you see a lot of wildlife. There are, among commercial users in this area and along the generally, a pretty wide variety of capabilities, interests, talents and so forth.

You can get sent pretty far away from the real truth about the area by some people just riding airboats and telling tall tales. You know, there are also people who ride airboats who know the resources there very well and treat it as responsibly as they can.

I think one of the advantages of carefully regulated National Park concessions in the area is that what are now tourist traps are going to become reasonably responsible public facilities. And, it may not be any more scintillating on a given day, but it will be a lot more realistic, a lot more truthful about the Everglades and their use.

Senator **Bumpers**. Well, I enjoyed the plant life. I saw an awful lot of exotic plant life that I enjoyed. And I saw some waterfowl. As I say, I think my expectations were high, but the experience was still worth doing, I think.

Thank you both very much for being with us this morning.

Our last panel this morning is Jill Whittaker Hoog, Miami, Florida; James Humble, Chairman, South Dade Land Corporation; Dave Balman, Everglades Coordinating Council; and Manley K. Fuller, III, President of the Florida Wildlife Federation.

Ms. Hoog, your name is first on my list. Is Mr. Humble not here?

Mr. **Humble**. Yes, I am here.

Senator **Bumpers**. Ms. Hoog, have a seat.

STATEMENT OF JILL WHITTAKER HOOG, MIAMI, FL

Ms. **Hoog**. Mr. Chairman, thank you. We appreciate this opportunity to testify today. My name is Jill Whittaker Hoog and I reside with my husband and children in the 8.5 square mile area of the East Everglades, a residential area. We have lived there since 1976.

Senator **Bumpers**. Ms. Hoog, I want to get this straight. Are you inside the East Everglades?

Ms. **Hoog**. Yes sir. I am a resident in the 8.5 square mile residential area.

Senator **Bumpers**. And how many people are there like you?

Ms. **Hoog**. Many are working in the area. There are about 2,000 of us.

Senator **Bumpers**. How long have you lived there?

Ms. **Hoog**. I have lived there since 1976.

Senator **Bumpers**. What kind of value to you put on your home?

Ms. **Hoog**. Well, I put a value on it as irreplaceable because I am in a beautiful, quiet, area. I am a native Floridian, and we either had to live out of the city or move out of the state. Our neighborhood has wonderful area. It is just that we have been impacted by decisions in government.

There has been a test going to determine what will help the park. We are park lovers. We frequent the park all the time and we are fishermen. But, this test is impacting us and we are flooding periodically. Our children have to walk to school on rock roads that are under water frequently.

Senator **Bumpers**. What is the name of the community where you live?

Ms. **Hoog**. Well, we call it the West Dade Acres. Government has called it, it grouped us in with the whole 242 square mile area, the East Everglades.

Senator **Bumpers**. Can you show me on that map over there where you live?

Ms. **Hoog**. Sure. I live right in this gray area.

Senator **Bumpers**. Not in the area that is proposed for acquisition then?

Ms. **Hoog**. No sir.

Senator **Bumpers**. I misunderstood you a moment ago. I thought you said that you were. Go ahead.

Ms. **Hoog**. When we bought our land in 1973, there was Congressionally-authorized flood protection on the books for the East Everglades area. We are the farthest eastern portion of the East Everglades. We sit up against the existing project works there.

There was a letter that went between the National Park Service and the Army Corps of Engineers on this authorization in 1970 asking the president of the Senate Public Works to move the alignment for this flood protection that was to go in out there to the east.

And that, in essence, gave a buffer area around the park, I think, I feel until government could get things in order to take this area for the park. We understand that it will help the park. But what we are concerned about is being caught between two factions here.

The park on one side of us, to our west all around us. And east of us, are the privately owned flood protected lands. We are in limbo between this. We need flood protection to protect from these waters that are going to aid the park's ecosystem.

We are not valuable to the park's ecosystem because we are very developed, our elevation is higher, we have no endangered species and purchase of our area, in Governor Martinez' task force, was estimated at $88 million. Now, remember, we are 8.5 square miles. We are a very small portion of this area.

And, I would have to quibble with those figures being a resident, because there are more homes in there than what was stipulated to at that point. You know, that may have been an old count.

We really want to be behind this project for the park, but what we would like this committee to understand is that we cannot be behind and go to help with it, unless we know that we are going to be protected from these waters.

Do you have any other questions?

[The prepared statement of Ms. Hoog follows:]

Testimony of Jill Whittaker Hoog
before the
Sub-Committee on Public Lands, National Parks and Forests

June 20, 1989

Chairman Bumpers and Members of the Committee:

We appreciate this opportunity to testify on Senate Bill 724 authorizing the expansion of Everglades National Park.

My name is Jill Whittaker Hoog and I reside with my husband and two children in the 8.5 square mile area of the East Everglades, a residential area. We have lived there since 1976 and have experienced the changes in water deliveries first hand.

We are frequent visitors to Everglades National Park and have already seen improvement in fish stocks since changes in water delivery and structures has occurred. We love the Park and want to see it alive for future generations, but we cannot support Park expansion until and unless we are protected with a viable flood protection system. Even if the boundaries are not expanded we need protection from the changes in water delivery that are being and will be accomplished to aid the Park.

We were allowed to move into the 8.5 square mile area by local government. Our homes are legally permitted and our lives have been disrupted by changes in water delivery to benefit the Park.

When we bought our land in 1973 Congressionally authorized Flood Protection for the 8.5 square mile area was on the Dade County Master Plan. On June 22nd 1973 a memorandum between the National Park Service and the Army Corps of Engineers requested the Senate Public Works Committee to move the alignment for that flood protection to the East of our area, precluding development near the existing Park boundary.

Please understand, that frequent intermittent flooding of our neighborhood in relation to water delivery to the North East Shark River Slough "rainfall test" is why we must have flood control.

It is our hope that this Committee will construct an amendment to the legislation that will provide a viable flood protection plan to protect us from changes in water deliveries that are benefitting the Park.

In 1981 steps were taken by Everglades National Park, South Florida Water Management District and the Army Corps of Engineers to alleviate the high waters in Everglades National Park. The resulting action caused changes in water deliveries which continue to produce drastic effects on our land and families.

An example of one change we have experienced is in 1978 10% of the available water deliveries were placed in a N.E. Shark River Slough. Today 55% of the available water deliveries are being placed in the N.E. Shark River Slough. We live on the South Eastern edge of the Slough and are impacted greatly by this water. The structure S333, now being used to execute this change was originally designed and congressionally authorized for use during drought to deliver water to the Park.

A "test" has been implemented with these and many other changes upstream and downstream of our area. We live between competing factions, the Park and privately owned flood protected lands to our East.

The result is that we flood frequently, our streets look like canals during flood events. These rock roads can be under twelve inches or more of water. Some of our children have to walk ½ to 2-½ miles to get to school bus stops. Police, Fire and Ambulance are difficult or nonexistent because normal emergency vehicles cannot cope with the amount of water that we have learned to deal with. Our roads are privately maintained by the residents, they are washed away by the periodic flooding. We have experienced some contamination of drinking water wells. During the last bad flood event in 1988 the County Health Department could not check our wells because our roads were impassable.

We did not fight the "test" that has been done in the N.E. Shark River Slough, but we have been "guinea pigs" long enough. The "test" has built in safe guards for our area, but when there is too much ground water and rainfall, the "test" pumping safe guard is stopped by its own criteria and we fill up like a bath tub. The "test" has caused a major rise in the ground water in our area and is keyed to ground water levels. Governor Martinez' Task Force, page 37 states that " peak stage conditions will produce water levels from 0.5 to 1.5 feet higher throughout the residential area. Therefore, flood protection must be provided for any residences allowed to remain west of L-31 N."

The 242 square mile east Everglades area was downzoned to one house per 40 acres in 1981, I presume in anticipation of Park expansion, and this has really hurt our property value. In a 1972 Workshop the Flood Control District referred to working things out with Dade County without purchase and making our area a water conservation area, and restricting development. We have been told by Dade County our original zoning in the 8.5 square mile area will be reinstated when we have flood protection. For many in our area our homes are our major investment, and the resulting devaluation caused by downzoning and flooding makes it very hard to get loans to improve our homes or to sell them.

We are not asking for a windfall, we just want to be on the same footing as other people in Dade County.

Can you imagine driving 4 to 6 weeks on a flooded road, seeing your yard under water, keeping the children housebound, while you wait for the pumps at L-31 to be turned on to start moving water out of the area?

Many residents have dogs, horses and other animals and flooding is very hazardous to all of us.

We need your endorsement for flood protection. Government agencies have supported it and told us to be patient. Flood protection or purchase of our area is our primary goal. However, we do not want to be purchased unless there is no other way to solve the problem. Governor Martinez' Land Acquisition Task Force estimated purchase of our 8.5 square mile area at $88,000,000. I believe that option to be prohibitively expensive and restoration of our area to a natural state would also be expensive and probably impossible. The Army Corps of Engineers acquisition alternative assumes our land has no use value with the N.E. Shark River Slough flow restoration. Purchasing us would be of little value to the Parks ecosystem.

We have a mostly residential community with some small agriculture, groves, nurseries and businesses. We have approximately 400 legally permitted homes and 2,000 people who reside or work in the area.

As sport fishermen utilizing Everglades National Park over many years we see fresh water as the key to successful rejuvenation. We only hope this will coincide with our constitutional rights of private property.

On behalf of many of my neighbors who contributed funds for our trip to Washington, I thank you. Your consideration in this matter is very much appreciated.

Jill Whittaker Hoog

Jill Whittaker Hoog
East Everglades Resident
16150 S.W. 213th Ave.
Miami, FL. 33187

Senator **Bumpers**. Is that essentially your testimony? You have no objection as long as you have some assurance that you are going to be flood protected?

Ms. **Hoog**. Yes sir.

Senator **Bumpers**. OK. Thank you very much.

Mr. Humble.

STATEMENT OF JAMES HUMBLE, CHAIRMAN, FLORIDA LIME AND AVOCADO TRUSTEES

Mr. **Humble**. Thank you, Mr. Chairman. Mr. Chairman and Members of the committee, my name is James Humble. I am an officer of the South Dade Land Corporation and Chairman of the Florida Lime and Avocado Trustees. I am grateful for the opportunity to be hear today because it gives the farmers of South Dade County the opportunity to express their thanks for the subcommittee's interest and attention to what we believe is one of the most beautiful areas in the Nation.

With your permission, I will summarize my statement and ask that my full statement me included in the record.

We are concerned about the preservation of our livelihood. Three factors related to this legislation contribute to this concern. First, there is a history of protective farmland being lost through expansion of the Everglades National Park.

Secondly, as I shall describe, the recent actions of the management of park have farmers in the area on the defensive.

And, finally, certain aspects of this Bill, itself, and anticipated modifications to it, are very troublesome to farming in South Dade County. Before detailing on our position on S. 724, it is important to describe briefly agriculture in South Dade County and to focus for a moment on an area commonly referred to as the Frog Pond.

Farming in South Dade County is a very important part of the local economy which has been encouraged and nurtured for decades by a number of explicit state and Federal incentives and policies. First and foremost among these policies has been the provision of flood control and drainage explicitly authorized and designed for, among other things, the express purpose of improving agriculture productivity.

Like the thousands of other businesses and industries which have been nurtured by that provision of basic infrastructure by state and Federal governments, the agriculture in South Dade County provides tremendous benefits to the national and regional economy.

In the relatively small areas of South Dade County, a wide variety of high-value crops, such as tomatoes, limes, mangoes and avocados, are grown. It is the only area in the country where tropical fruits and vegetables are grown. Without hesitation, this can accurately be referred to as the Nation's winter breadbasket.

Allow me to cite a few statistics. The 80,000 acres of farmlands in South Dade County have the highest return per acre of any farmland in the Nation. There are $100 million worth of tomatoes grown annually. $50 million worth of grove production and over $60 million worth of corn and other crops grown.

To make this possible, the farmers of South Dade County employ over 37,000 migrant workers in the average year. Dade County statistics show that when you consider the multiplier affect of these dollars, agriculture in South Dade County effectively contributes $1 billion to the economy.

One especially productive area within South Dade County is the Frog Pond, which is composed of approximately 5,300 acres. This area has been a pond for over four decades, beginning in the 1940's, and today is cultivated mainly in tomatoes.

While nearly 40 percent of the Nation's winter tomatoes are produced in South Dade County, the bulk of these tomatoes are grown in the Frog Pond area. This relatively modest acreage directly contributes over $40 million per year to the economy of Dade County.

Dispute over water levels in the canals: Unfortunately, as Members of the subcommittee may be aware, during the past couple of years a dispute has risen between the management of Everglades National Park and farmers in South Dade County.

The essence of this dispute revolves around water levels in the two drainage canals, L-31W on the eastern border of Everglades National Park and the C-111 canal. Operation of these canals in a manner consistent with the Congressionally-authorized purpose is critical to whether or not the farmlands adjacent to the park can be safely cultivated.

If water levels are kept too high in the canals during certain periods, the roots of our crops are inundated and our crops sicken and die. This very simple principle was recognized in 1963 when the L-31 canal was authorized by Congress for the purpose of flood control and drainage.

It was not until 1968 that the Corps of Engineers unilaterally declared water delivery to the park to be an additional, not the primary, purpose of the canal.

Attached to my testimony is a letter to the Corps of Engineers from the South Dade Land Corporation Council which outlines the legislative history of this canal.

Until very recently, the multi-purpose character of this canal was recognized by all parties and agreements were in-place to provide the farmers with the flood control and drainage that they needed, while at the same time providing ample water deliveries to the park.

However, two years ago, the park management, in an about-face, declared that to stimulate what they maintained to be historical water flows to the park, water levels in the L-31W canal must be kept high all year round.

For reasons unknown to us, the Corps of Engineers has now abdicated its responsibility for determining proper water levels in the canals to the park, and the park has in turn sought to operate them for the single purpose of increasing water deliveries to the lower reaches of the park.

The direct consequences of this will be to make winter farming in large portions of the Frog Pond impossible in normal years. Further, the farmers of Frog Pond are keenly aware of the park management's desire to annex our land for inclusion in the park. This desire is no secret.

In a letter from the park superintendent dated March 20th, [illegible]989, to Colonel Robert Herndon, District Engineer for the Corps of Engineers, a priority of the park is to acquire, in public ownership, a portion of the western side of the Frog Pond.

The motive behind the park's recent actions regarding the water levels in the canal in question becomes as clear as this letter which, in part, outlines the park's wishes with respect to the water delivery states: "Higher stages in L-31 north and L-31W will also increase water levels in the adjacent private lands of the Frog Pond, thus necessitating their acquisition."

This behavior on behalf of the park management is even more suspect when you realize that because of numerous water delivery modifications to the north, and because of the Congressionally-mandated deliveries into the northeast Shark River Slough, more water than ever before is now being dumped into the park and the canal system of South Dade County.

This fact is detailed by the testimony of a hydrologist, Mr. Bradley G. Waller, which I ask to be included in the written record of this hearing.

For the past few years, the park management has been maintaining that water drawdowns in the canals for the purpose of agriculture are responsible for the degradation of the park. We believe this to be untrue, and direct the attention of the subcommittee once again to the testimony of Mr. Waller on this point.

Thus, the farmers of the Frog Pond are understandably on the defensive these days. We believe the actions and assertions of the park concerning the water levels are not so much necessitated by the conditions in the park, as claimed, but instead are primarily motivated by a desire to make farming impossible in portions of the Frog Pond so that we will have no choice but to allow the park to annex the land.

As you can see, Congressional considerations of this legislation comes at a time when there is a general climate of distrust and animosity between the farmers of South Dade County and the park management.

You will understand, therefore, some hesitation on our part to embrace a bill that calls for the conversion of massive amounts of land in our vicinity to park ownership and operation, when part of the rationale given for that conversion is to increase water flows to the park.

The committee must also understand that our concern is not only directed towards what is in the bill now, but also extends to certain amendments which we anticipate will be offered.

Finally, it is important to note that this legislation was drafted to carry out the recommendations of Governor Martinez' East Everglades Land Acquisition Task Force. This Task Force had no representation whatsoever from the farming community.

I would like to thank Senator Graham and Congressman Fascell and their staff for the opportunity we were given to provide comments and suggestions prior to the introduction of this legislation and for making some changes to the bill which reflect some of our suggestions.

Thank you.

[The prepared statement of Mr. Humble follows:]

TESTIMONY OF JAMES HUMBLE
CHAIRMAN, FLORIDA LIME AND AVOCADO TRUSTEES
BEFORE THE
SUBCOMMITTEE ON
PUBLIC LANDS, NATIONAL PARKS AND FORESTS
UNITED STATES SENATE
JUNE 20, 1989

Mr. Chairman, Members of the Committee, my name is James Humble. I am an officer of the South Dade Land Corporation and Chairman of the Florida Lime and Avocado Trustees. I am grateful for the opportunity to be here today because it gives the farmers of south Dade County the opportunity to express their thanks for this Subcommittee's interest and attention to what we believe is one of the most beautiful areas in the nation. Like others here today, we recognize the value and importance of the Everglades National Park and want to see it preserved for future generations.

However, we are also concerned about the preservation of our livelihood. Three factors related to this legislation contribute to this concern: first, there is a history of productive farmland being lost to expansions of the Everglades National Park; secondly, as I shall describe, recent actions by the management of the Park have farmers in the area on the defensive; and finally, certain aspects of this bill itself and anticipated modifications to it are very troublesome.

There should be no misunderstanding: the farming community will not object to this legislation if we are assured that farming and farmlands adjacent to the Park are not directly harmed by the provisions of this legislation or harmed by subsequent conditions in the Park or its environs that are made possible by this legislation. If we do not receive these assurances, the agricultural community will have no choice but to strongly oppose this legislation.

FARMING IN SOUTH DADE COUNTY

Before detailing our position on S.724, it is important to describe briefly agriculture in south Dade County and to focus for a moment on an area commonly referred to as "Frog Pond". I would also like to speak to the importance of the crops that we grow to the national and regional economy.

Farming in south Dade County is a very important part of the local economy (very big business) which has been encouraged and nurtured for decades by a number of explicit state and federal incentives and policies. First and foremost among these policies has been the provision of flood control and drainage explicitly authorized and designed for, among other things, the expressed purpose of improving agricultural productivity.

Like the thousands of other businesses and industries which have been nurtured by the provision of basic infrastructure by state and federal governments, the agriculture in south Dade County provides tremendous benefits to the national and regional economy. As is also the case with other industries, many millions of dollars of private funds have been invested to make our businesses profitable ones.

In the relatively small area of south Dade County, a wide variety of high value crops such as tomatoes, limes, mangos, and avocados are grown. It is the only area in the country where tropical fruits and vegetables are grown. Without hesitation this can accurately be referred to the nation's winter breadbasket.

Allow me to cite a few statistics. The 80,000 acres of farmlands in south Dade County have the highest return per acre of any farmlands in the nation: there are $100 million worth of tomatoes grown annually; $50 million worth of grove production; and over $60 million worth of corn and other crops grown. To make this possible, the farmers of south Dade County employ over 37,000 migrant workers in the average year.

Dade county statistics show that when you consider the multiplier effect of these dollars, agriculture in south Dade County effectively contributes one billion dollars to the economy.

One especially productive area within south Dade County is the Frog Pond which is comprised of approximately 5,300 acres. This area has been farmed for over four decades beginning in the 1940's and today is cultivated mainly in tomatoes. While nearly 40% of the nation's winter tomatoes are produced in south Dade County, the bulk of these tomatoes are grown in the Frog Pond area. This relatively modest acreage directly contributes over $40 million dollars a year to the economy of Dade County.

The Frog Pond has become so valuable and productive that in recognition of its importance to the local economy, Dade County has recently reclassified it as agricultural land. In addition, the USDA has recently classifies these lands as "Unique" Agricultural lands within the meaning of the Federal Farmland Preservation Act.

DISPUTE OVER WATER LEVELS IN THE CANALS

Unfortunately, as Members of the Subcommittee may be aware, during the past couple of years a dispute has arisen between the management of the Everglades National Park and the farmers in south Dade County. Since our position on S.724 is closely tied to the resolution of this dispute, I will take a moment to describe what we see as the problem.

The essence of this dispute revolves around water levels in the two drainage canals -- L-31(w) on the eastern border of the Everglades National Park, and the C-111 canal. Operation of these canals in a manner consistent with their Congressionally authorized purpose is critical to whether or not the farmlands adjacent to the Park can be safely cultivated -- if water levels are kept too high in the canals during certain periods, the roots of our crops are inundated and our crops sicken and die.

This very simple principle was recognized in 1963 when the L-31(w) canal was authorized by Congress for the purpose of flood control and drainage. It was not until 1968 that the Corps of Engineers unilaterally declared water delivery to the Park to be an additional (not the primary) purpose of this canal. Attached to my testimony is a letter to the Corps of Engineers from the South Dade Land Corporation counsel which outlines the legislative history of this canal.

Until very recently, the multipurpose character of this canal was recognized by all parties and agreements were in place to provide the farmers with the flood control and drainage they needed while at the same time providing ample water deliveries to the Park. However, two years ago, the Park management, in an about face, declared that to simulate what they maintain to be historic water flows into the Park, water levels in the L-31(w) canal must be kept high all year round.

For reasons unknown to us, the Corps of Engineers has now abdicated its responsibility for determining proper water levels in the canals to the Park and the Park has in turn sought to operate them for the single purpose of increasing water deliveries to the lower reaches of the Park. The direct consequence of this will be to make winter farming in large portions of Frog Pond impossible in normal years.

Further, the farmers of Frog Pond are keenly aware of the Park management's desire to annex our land for inclusion in the Park. This desire is no secret. In a letter from the Park Superintendent dated March 20, 1989 to Colonel Robert Herndon, District Engineer for the Corps in Jacksonville, a priority of the Park is to "acquire in public ownership a portion of the western side of the 'Frog Pond'". The motive behind the Park's recent actions regarding the water levels in the canals in question becomes clear as this letter which in part outlines the Park's wishes with respect to water delivery states:

> "higher stages in L-31N and L-31W will also increase water levels in the adjacent private lands of the 'Frog Pond', thus necessitating their acquisition." (Emphasis added).

This behavior on the part of the Park management is even more suspect when you realize that because of numerous water delivery modifications to the north and because of the Congressionally mandated minimum deliveries into the North East Shark River Slough, more water than ever before is now being dumped into the Park and the canal system of south Dade County. This fact is detailed by the testimony of our hydrologist, Mr. Bradley G. Waller, which I ask be included in the written record of this hearing.

For the past few years, the Park management has been maintaining that water drawdowns in the canals for the purpose of agriculture are responsible for the degradation of the Park. We believe this to be untrue and direct the attention of the Subcommittee once again to the testimony of Mr. Waller on this point.

Thus, the farmers of Frog Pond are understandably on the defensive these days. We believe the actions and assertions of the Park concerning the water levels are not so much necessitated by the conditions in the Park, as claimed, but instead are primarily motivated by a desire to make farming impossible in portions of the Frog Pond so that we will have no choice but to allow the Park to annex the land.

We question the propriety and legality of a government agency on one hand stating its intent to acquire lands while at the same time taking actions that effectively drive down the value of that same land. We believe that this is improper conduct on the part of a government agency and urge this Subcommittee to thoroughly investigate this behavior.

We have pursued good faith negotiations in attempts to reach a compromise similar to those reached in the past, but have been unable to do so. Unfortunately, the current situation with regard to the water levels will eliminate our winter growing capability and result in severe economic losses. We are afraid, however, that no compromise, short of us abandoning our land, will satisfy the Park management.

VIEWS ON THE PENDING LEGISLATION

As you can see, Congressional consideration of this legislation comes at a time when there is a general climate of distrust and animosity between the farmers of south Dade County and the Park management. You will understand therefore, some hesitation on our part to embrace a bill that calls for the conversion of massive amounts of land in our vicinity to Park ownership and operation when part of the rational given for that conversion is to increase water flows to the Park.

The Committee must also understand that our concern is not only directed toward what is in the bill now, but also extends to certain amendments which we anticipate will be offered.

Finally, it is important to note that this legislation was drafted to carry out the recommendations of Governor Martinez's East Everglades Land Acquisition Task Force. This task force had no representation whatsoever from the farming community.

I would like to thank Senator Graham and Congressman Fascell and their staffs for the opportunity we were given to provide comments and suggestions prior to the introduction of this legislation and for making some changes to the Bill which reflect some of our suggestions.

Having said this, I would now like to outline the specific concerns of the south Dade County agriculture community with this legislation.

First as I stated at the beginning of my statement, any language authorizing purchase of any of the Frog Pond land or any other lands currently in agricultural production for inclusion in the Everglades National Park is totally unacceptable to us.

Unfortunately, we now know that the map outlining the proposed new Park boundaries in section 102(a) of the bill includes approximately 500 acres of existing agricultural land in five separate tracts. I ask that a map pinpointing these areas be submitted for the record. We request that these lands be "drawn out" of this map and not be considered any further for inclusion in the Park.

Second, we question the wisdom and meaning of the repeated call in section 101 for the restoration of "natural hydrologic conditions" within the Park. On one hand, there is no definition of this very key concept given in the bill and as is pointed out by the testimony of Mr. Bradley Waller, there are no known documents which specifically define this concept. More importantly, we fear that this phrase may be used in the future to help justify increased water deliveries to the Park via the existing canal system at the expense of agriculture in south Dade County.

There has been a longstanding scientific debate as to what the historic (and therefore presumably "natural") water levels in the Park have been. Despite our repeated urgings, the Park Service has refused to request that an impartial body such as the U.S. Geological Survey perform an independent study of the issue. Therefore, if the phrase "natural hydrologic conditions" is to be left as one of the central concepts in the bill, we strongly recommend that either it be immediately followed by the words "as defined by the United States Geological Survey" or that a separate provision directing the USGS to perform such a study be added to the bill.

In a similar fashion we are puzzled and apprehensive about section 103(b) which states that "the Secretary shall manage the park in order to maintain the natural abundance, diversity, and ecological integrity of native plants and animals, as well as the behavior of native animals as part of their ecosystem." While we agree that the Secretary should have the authority to manage the park lands in such a way as to protect the basic integrity of the park, we are very concerned that the broad and undefined nature of this language gives the Secretary carte blanche authority to operate the park and influence associated water deliveries in such a way as to ignore the very real needs of the farmers of south Dade County. We therefore recommend that this language be abolished and that existing generic authority that exists for the management of all National Parks be considered sufficient.

Next, we seriously question the statement in section 101(a)(3) that there has been a 90% loss of wading birds due to habitat alterations in the park. We who have grown up and lived in this area have for years take exception to what we believe to be the Park Service's rather starry-eyed and probably inaccurate gaze back into the history of wildlife in the Southern Florida area. A recent paper on the history of wading bird populations in the south

Florida everglades written by a nationally recognized biologist concludes that:

> "the extensive documentation of everglades wading bird populations exemplifies the perpetuation of illusion and interpretation inherent in such historic information. Records of millions of nesting wading birds in Southern Florida often cited in the popular, scientific resources managements literature, have no creditable origin".

There is indeed scientific disagreement as to the historic wildlife and hydrological conditions in the South Florida area. The agriculture community believes that basing expensive and disruptive resource management decisions such as the operation of the south Dade country canal system on questionable assumptions and overly romantic ideas about the past is very bad policy.

We also question the statement in Section 101(a)(5) that the state of Florida has indicated a willingness to transfer approximately 55,000 acres of land under their jurisdiction to the Park. The fact of the matter is that the Florida State legislature recently rejected legislation providing for State cooperation in the Park expansion effort.

Finally Mr. Chairman and Members of the Subcommittee, It is our understanding that this legislation will be amended to, among other things, authorize the Corps of Engineers to make certain structural changes to the Central and South Florida Project and to provide flood control and drainage for the so called "eight and one half square mile area". Since the increased water deliveries to the North East Shark River Slough resulting from this legislation will result in higher water levels and flooding within the eight and one-half square mile area, we fully support its being protected with appropriate flood control and drainage.

We must insist however, that this same principle of protecting private property from any harm which might be caused by this legislation apply with equal force to agricultural lands. Specifically, as is also detailed in the testimony of Mr. Waller, both the increased flows into the Northeast Shark River Slough and the flood control and drainage for the eight and one-half square mile residential area authorized in the anticipated amendment to the bill are likely to result in increased water levels and flooding in the L-31(w) canal and the C-111 basin and consequently cause damages to agriculture in the adjacent areas. Therefore, we insist that any amendment to S.724 which authorizes these Corps projects provide that until adequate flood control, drainage, and/or water delivery modifications are well underway or already in place, that those projects not go forward. To do anything less would be patently unfair and fly in the face of the government's Constitutional responsibility to uphold private property rights.

In sum Mr. Chairman and Members of the Subcommittee, the farmers of south Dade County will not oppose this legislation as long as when all is said and done, we are left whole. We are confident that we will receive fair treatment by this Committee and by the Senate.

The farmers of south Dade County area sincerely hope that we are not somehow viewed as spoilers in the process of enlarging the Everglades National Park. We are not necessarily looking to be improved by this legislation, we simply want to be left alone to continue farming. It's really that simple.

We thank you again for hearing our views and we look forward to working together with you on this legislation.

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June 19, 1989

The Honorable Robert W. Page
Assistant Secretary of the Army
Department of the Army
Washington, D.C. 20310-0103

Dear Mr. Secretary:

This is in response to your letter of April 13, 1989 concerning the Corps of Engineers' operation of the Central and Southern Florida Flood Control Project as it relates to the Frog Pond agricultural area. We feel compelled to bring to your attention what we believe to be several inaccuracies in your reply as it relates to the authorized purposes of the Project in the Frog Pond area.

First, it is important to note that the Central and South Florida Project was initially authorized in 1948 to provide "flood control, drainage and water control" in central and southern Florida. H. Doc. No. 643, 80th Cong., 2d. Sess., May 6, 1948, p.1. The improvements authorized by the Comprehensive Plan you describe in your background paper were designed to "remove excess water from urban, pasture and farmlands" for the "protection of property and farming". Id., p.9. Use of the Project to supply water to the Everglades National Park was not included in this authorization.

In the second paragraph of your reply you state that the "promotion of these interests [agriculture] is not identified as an express purpose of the central and southern Florida project ... ." To the contrary, the improvements described in your background paper were authorized by the 1962 amendments for the specific protection of Southwest Dade County and were designed to provide primary drainage for agriculture. As stated in the Syllabus to the Report of the District Engineer, S. Doc. 138, 87th Cong., 2d Sess., September 21, 1962, p.11.,

> [i]n 1947, when the Central and Southern Florida Project Plan was being prepared, there was little development in South Dade County except on relatively high ground of the ridge area. Since that time, there has been extensive truck-crop development on lower lands subject to damaging floods almost yearly. [Emphasis added].

The District Engineer recommended the construction of Borrow canal L-31W to remedy this situation and Congress authorized its construction in the Flood Control Act of 1962, P.L. 87-874.

The protection of agricultural lands was the specific identified purpose of additional modifications to the South Dade County System in 1965. In a letter dated 3 September 1964 to the Secretary of the Interior, the Secretary of the Army described the proposed modifications to the plan as follows:

> Essentially, the plan for the Southwest Dade County area is based on providing "growing season" water control in that area. Under the plan, floodwaters would be removed at such time to permit preparation of the land for fall and winter planning.

S. Doc. 20, 89th Cong., 1st Sess., April 28, 1965, p.xi. The Plan itself called for the use of borrow canal L-31W to remove the design flow. Id., p.21. Clearly, therefore, the promotion of agricultural interests in this area was an express purpose of the Project as demonstrated by the legislative history described above.

Second, on p.3 of the background paper, you state that the L-31W borrow canal was designed to convey flow to the Taylor Slough area of the Park. That is not correct. L-31W borrow canal was authorized to convey the flow resulting from drainage of the agricultural lands in Southwest Dade County. L-31W borrow canal was authorized in 1962. The delivery of water to the Park and a system designed to do so were not authorized by Congress as a purpose of the Project until 1968. In fact, the Corps of Engineers lacked the jurisdiction to even study the provision of water to the Park by use of Project structures, let alone actually provide water, until specifically authorized to do so by a Senate Committee on Public Works Resolution in 1960. That study culminated in the modifications proposed in 1968 designed to deliver water to the Park.

The 1968 modifications that were intended by Congress to be used to deliver water to the Park did not include L-31W borrow canal. S. Rept. 91-895, 91st Cong., 2d Sess., May 26, 1970, p. 19. Nor was the delivery of water to the Park by the Project given a priority purpose by Congress despite requests by the Department of the Interior to do so. H. Doc. No. 369, 90th Cong., 2d Sess., July 30, 1968, p.2. In fact, the Senate Committee on Public Works directed the Corps to determine how to operate the Project so it would "serve municipalities, industrial plants, agricultural areas and the Everglades National Park in a feasible manner." S. Rept. 87-2258, 87th Cong., 2d Sess., p.187-8.

We have no quarrel with your statement that delivery of water to the Park is "one of the specified purposes" of the Project. We take strong issue, however, with your characterization that the drainage of agricultural lands is merely a "special benefit" the Corps provided in its discretion. As demonstrated by the legislative history, that drainage is the sole authorized purpose of the particular structures in question.

The Corps has chosen to operate the Project in a manner that results in a detriment to one of the Project's originally authorized purposes -- drainage of agricultural lands in Southwest Dade County. It has chosen to assign an operational priority to the delivery of water to the Park by the Project contrary to Congressional mandate. The farmers of Frog Pond are not seeking a "special benefit" from the Corps, to the contrary, they are merely requesting that the Corps operate this Project in accordance with all its authorized purposes. We believe that, unfortunately, the Corps by discretion has in effect ignored what Congress mandated by statute.

After you and your staff have reviewed this, I would appreciate the opportunity to discuss this matter with you. Because the winter growing season is fast approaching, we would like to find an equitable solution to this problem as quickly as possible. We appreciate your consideration of our views and know that you will study this issue carefully.

Sincerely,

Harold W. Furman II
Washington, D.C. Counsel
South Dade Land Corporation

HWF:ghc

cc: Earl Stockdale

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History of Wading Bird Populations in the Florida Everglades: A Lesson in the Use of Historical Information

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Abstract.—Population size is a crucial aspect of the biology of any species and a key to developing appropriate conservation strategies. Population trend analysis requires use of historical information, the quality of which varies widely according to its source, methods of collection, purpose of collection, political climate prevailing at the time, and the literary nature of the report. The extensive documentation of Everglades "wading bird populations" exemplifies the perpetuation of illusion and interpretation inherent in such historic information. Records of millions of nesting wading birds in southern Florida, often cited in the popular, scientific, and resources management literatures, have no credible origin. Such reports of large numbers refer primarily to White Ibis, whose historical populations can be estimated at about 100,000 birds. The documentable historic population of Wood Storks was no more than 20,000 birds (Kushlan and Frohring 1986). Historically high counts for commonly listed herons are 9,200 Great Egrets, 10,300 Snowy Egrets, and 9,800 Tricolor Herons (Kushlan and White 1977). Past information on any colonial waterbird population must be used and evaluated with extreme caution, and only after interpreting data on a species by species basis.

Key words.—Census, conservation, Everglades, heron, historical, ibis, populations, south Florida, stork, wading birds.

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Knowledge of population size and trend is an important aspect of the biology of any species and a key to developing an appropriate conservation strategy. Determining avian population sizes is difficult under the best of circumstances because of problems in developing and using census techniques having sufficient accuracy and precision to support a meaningful inference of population size. Determining long-term population trend is even more difficult, because past information must be used.

The history of wading bird populations in the Everglades of southern Florida provides a cautionary lesson in the use and misuse of antique information. Consider, for example, a representative article on the Everglades and Everglades National Park appearing in Newsweek for April 7, 1986 (Moreau 1986). It stated, "With half of the Everglades already developed, 90 percent of its wading birds have disappeared. Only 250,000 wading birds visited the park last spring, compared with 2.5 million for the same area in the 1930's."

The concept of some censusable group called wading birds is imprecise. References commonly cited from the late 1800's through early 1900's include gulls, terns, pelicans and cormorants none of whom wade. From a conservation perspective, none of these species have the same ecological requirements, nor do the various ciconiiform species ranging from Wood Storks to Cattle Egrets. Robertson and Kushlan (1974) offered the figure 2.5 million, referring to such a variable composite of species, not for the 1930's nor just in the Everglades, but for all southern Florida in 1870. The highest original figure made in the 1930's was one million birds, but the same estimator offered different, lower numbers in different writings, and this number was expanded to 1.2 million by Robertson and Kushlan (1974). The Newsweek article is historically consistent in misquoting without reference and in selecting pieces of historical data then putting them together as fact. Finally it is almost incidental to point out that the number of birds that happen in any year to be "visiting" the southern Florida marshes bears no direct relation to the status of the local breeding populations supported by the Everglades. Historical data are similarly riddled with mixed-species nest, bird, juvenile, nesting and roosting counts that cannot be compared.

Bird Populations as History

Primeval Numbers and Plume Hunting

Over a period of about 40 years plume hunters killed a massive number of some bird species in the United States, in Central and South America, and in the Old World. In 1892, a single agent reported the shipment of 130,000 birds for millinery purposes, followed by 192,000 a decade later from Florida alone (Kersey 1975). Contemporary interpretations of the devastation to southern Florida's coastal bird populations prior to 1900 rely heavily on the impressions generated by W. E. D. Scott (e.g. 1887, 1888, 1891, 1892), who traveled Florida's Gulf Coast in 1874, 1878, 1880 and, later, in 1886. However he provided little quantitative information. In recalling his 1880 trip, his grandest estimate was "literally thousands"; other estimates of his or of local people he interviewed included "myriads," "many," "the happy and populous community," "plenty," "vast numbers," and "bird life . . . so abundant . . . that it would be difficult to exaggerate in regard to their number" (Scott 1887). Only occasionally did he discriminate quantitatively between the various colonially nesting species such as herons, gulls, cormorants, terns, or pelicans. He did not necessarily specify if birds were nesting, roosting, or wintering. In his later trip along a stretch of coast south to near Fort Myers, he described the devastation within 15 rookery sites that were either active on his trip or had been active in the recent past (Scott 1887). From his interviews with local residents and plume hunters, not personal experience, he also summarized the condition of colonies southward to Cape Sable. Some of his sweeping reports, such as the statement that no colonies existed on the southwest coast, were immediately challenged (Jamison 1891). He responded with the following statement: ". . . He would have patience indeed who could count the nests in a single acre of the two hundred acres, or there abouts, that are included in the single rookery known as late as 1878 . . ." (Scott 1891). In other words, he could not count them.

Scott (1891) was also reminding his readers, up front, he was talking in relative terms. His, and many of the later writings, were not meant to create a paper trail of species-specific population censuses. They were inherently polemical pieces intended to affect public policy. Response to Scott's articles was immediate. Shufelt (1887) deplored the "disgusting slaughter" described by Scott. Repercussions were long-lasting, because his information was the basis for Robertson and Kushlan's (1974) estimate of 2.5 million wading birds in southern Florida prior to the plume hunting era. Clearly, there is no basis for any quantitative projection of bird numbers during this era.

Illegal Plume Hunting Decades

The reports and commentary of Scott, Shufeld, and others led to the passage of the Federal Lacey Act in 1900 and Florida statutes in 1891 and 1901 that made plume hunting illegal. Florida Audubon Society and National Committee of the Audubon Societies employed wardens to guard the better known rookeries of plume birds. The wardens were local residents, most of whom had been previously engaged in the plume trade (Kersey 1985). The most famous was Guy Bradley, later martyred when shot trying to protect a colony (Tebeau 1963). Some of these wardens provided the first estimates of numbers of species at specific roost and nesting sites. O. E. Baynard, Supervising Warden for Florida, reported guarding 5,100 Great Egrets in 11 colonies, 2,375 Snowy Egrets in 13 colonies, along with 6,200 Tricolor Herons, 7,076 Little Blue Herons, and 26,000 White Ibis in Florida (Anon. 1914). Many reputable men would follow, and it is from their reports that we have predominant impressions of species' population numbers from the early 1900's to the 1950's. But not all wardens presented equally credible estimates.

Wardens assisted interested visitors, and perhaps influenced their own conclusions. Chapman (1908) visited Cuthbert Rookery with Guy Bradley, reporting at least 2,000 Tricolor Herons, 3-400 Great Egrets, and fewer numbers of Little Blue Herons and Snowy Egrets. He also relayed the view that several species would go extinct unless additional wardens were provided (Tebeau 1963). Other visitors simply did not concur on the numbers they saw. For example, Bent and Job visited Cuthbert Lake together. Bent reported himself (Bent 1904), and to the Audubon Director that 4,000 birds were nesting (Dutcher 1904). Job (1905) reported "about three thousand nests or six thousand birds." Still other noted ornithologists reflect the difficulty traversing the area. Howell (1932), for example, noted that in 1903 the Cape Sable "area was too vast and the travelling too difficult to arrive at any reasonably accurate estimate of numbers of birds breeding."

Herbert Mills (1916) managed to confound reports on bird status with no help from wardens or fellow ornithologists. He found so few Snowy and Great egrets on a 1915 trip from Tampa to Key west that he stated they would be "slaughtered in 1916, unless money can be found for their protection" (Mills 1916). He stated that people were "erroneously optimistic in regard to the status of egrets in Florida," citing a steamboat company which advertised "millions of Egrets" along Okeechobee and the canals. Mills suggested that this misconception was due to peoples' not distinguishing between egrets and White Ibis. Yet in the same article, Mills himself engaged in this misconception. He offered to loan a photographic exhibit of a devastated colony to anyone who would post it. This photograph was show "concrete evidence of the milliners' criminality" and illustrate the "threatened doom of the Egret." However the photographs were not of egrets but of a White Ibis colony. Both he and Job contended it had originally contained 10,000 birds. Mills, however, said that those birds not shot had deserted the colony by the time of their visit (Mills 1916); Job said there were 1,500 occupied nests (Anon 1915). Sprunt (1954) noted that Florida natives shot this species by the hundreds for food, so although this particular incident may not have been an act of malice by 'sportsmen' as Mills alleged, it served his cause (Anon 1933b, Sprunt 1954). Such drives to literally disgust the public were effective.

The reports that exist, although rough and inconsistent, do seem to place the numbers of birds at the most well known colony sites in the hundreds and low thousands. It is also clear that plume hunters took a toll on some species. Snowy Egrets became nearly extinct according to Sprunt (1954). Pearson (1922-1923) reported scattered colonies of Great Egrets in South Florida during 1922, but said they were shot out so continuously that the birds were too disturbed to count. As late as 1930, Pearson testified before the Senate that men pretending to be Audubon Wardens watched colonies until they were "ripe" then shot the birds. Local hunters were bootlegging birds into Key West (Tebeau 1963). But not all wading birds were equally affected by the trade. According to Chapman (1922) "The [Tricolor] Heron has fortunately never found favor with milliners and consequently is doubtless as abundant today as it ever was; rookeries containing thousands of birds not being uncommon in Florida." Of Little Blue Herons, he stated, "Thanks to their lack of 'aigrette' plumes Little Blue Herons are some of the most common Herons in Florida today." We cannot be quite certain how popular the White Ibis was for food. Cooke (1913) stated that throughout Florida, "the White Ibis has been one of the most abundant breeding birds . . ." and that it had "suffered so little at the hands of plume hunters that it is still common . . . and in some places is really abundant." Wood Storks appear not to have been effected as both Cooke (1913), and Chapman (1922) considered them common.

The 1930's

By the late 1920's, due to publicity, increased protection, increased sentiment for birds, and/or a change in women's fashions (Tebeau 1963, Blake 1980, Kersey 1975), hunting pressures decreased. The sensational population numbers that would burst forth in the next few years are best interpreted in relation to the new conservation issue of the day, the drive to establish a national park in the Everglades. A few wardens accommodated the cause nicely.

The idea for Everglades National Park took root in 1929 when the Tropical Everglades National Park Association was organized by local Miami citizens. That same year the Florida legislature passed an act providing for the establishment of an Everglades National Park Commission to acquire the necessary lands. In February, 1930 a National Park Service committee visited the area and reported to Congress on the suitability of the site for park purposes. During the visit 15,000 ibises and herons were seen in the Shark River Rookery (Anon. 1930). Wardens reported

20,000 egrets in the same colony that year. In December, 1930, a bill authorizing National Park Service to accept 2000 square miles was introduced in the Senate. From December 26, 1930 to January 3, 1931, a committee was sent to assess the area, reporting "a number of probably 40,000" herons, egrets and ibis roosting at Shark River during their visit (Anon. 1931). On February 10, 1931, the Senate unanimously passed the measure. Later the same month an attempt to call up this bill on the floor of the house for a vote was overruled due to a rush of business (Anon. 1931). Warden W. A. Roberts reported from 40-50,000 birds at East River, 100,000 White Ibis at the same site that spring. The following fall of 1931, he reported an estimate of 300,000 birds for the Biological Survey, but by (18 September) believed there to be 600,000 in what we assume to be the West Coast roosts he was patrolling (unpubl., NPS files). This figure was not published but was submitted to Audubon Society Officials. In 1932, another special subcommittee investigated the Everglades area, returning with a glowing report (Olmsted and Wharton 1932) in which they reported that the sight of "thousands upon thousands of ibis and herons of various species flocking in at sunset from their distant feeding grounds" and later to their nesting rookeries ranked "high among the natural spectacles of America." Response to these estimates was speedy. Howell (1932) noted, "The long unremitting, but finally triumphant, struggle of the National Association of Audubon Societies for the rescue from extinction of the plume birds of Florida presents a record probably unparalleled in the annals of conservation in this or any other country." Actually, the large counts at this time were of White Ibises, non-plumed birds.

In 1932 an additional issue had surfaced. "Financial stringency" had forced the release of all full-time wardens except the two on the Gulf Coast at Ten Thousand Islands, and these were to take a 50 per cent cut in salary to stay on two more months (Holt 1932). Wardens by this time had reported 50,000 Egrets and herons at Shark River (10,000 more than the Subcommittee saw), and 81,000 White Ibis at Ten Thousand Islands (Holt 1932). But by early 1933, wardens reported 700,000 water-birds at Ten Thousand Islands (Anon. 1933a), 100,000 more than the previous year's record; and while Audubon members visiting the area estimated 100,000 water-birds at Shark River (Anon 1933b), wardens "toyed with figures" arriving at 250,000 White Ibises alone (Holt 1933b). If warden estimates were escalating incredulously, they did cause action. On February 1, 1934, the year-round force of two wardens in Ten Thousand Islands was augmented by a third man, with the view that these men were not just protecting their jobs, they were protecting their lives by not having to travel alone (Anon. 1934). Because of the prominence of political and financial influences during this time, these wardens' estimates do not warrant immortalization.

With this numerical impression, we trace the much quoted visits of two conservation officials in 1933 and 1934, and the political results of their excersions. In May 1933, the National Association of Audubon Societies Director, E. G. Holt, made an inspection tour of the Gulf Coast rookeries. Holt (1933a) in his Society report noted carefully what he actually observed: At a colony site at Lane River he saw several thousand Wood Storks fledging and some birds of other species. However, he relayed in Bird-Lore what the wardens had told him. "On Lane River, the wardens reported some 50,000 Wood Ibises, 40,000 Louisiana (Tricolor) Herons, 40,000 Snowy Egrets and 15,000 American (Great) Egrets breeding. The mortality here was excessively high, caused, presumably, by a terrible plague of mosquitoes" (Holt 1933b). Recall Holt did not personally see such large numbers of birds, but rather relayed the warden's reports of what his wardens said he would have seen if only he had made his inspection a few weeks earlier, that is before the mosquito plague broke up the colony. Post-nesting roosts that year were reported to be so large "the boys have quit trying to express them in figures" (Holt 1933b). That same year, 1933, the State of Florida set aside 325,000 acres of state owned land within the maximum boundaries of Everglades Park for national park purposes.

The wardens gave up counting in the hundreds of thousands. However, someone with less experience would make an estimate which would be accepted throughout the historical literature. In 1934, R. P. Allen, newly appointed sanctuary director, undertook his first-ever visit to a south Florida wading bird colony as part of his own inspection of Gulf Coast sanctuaries. At Shark River, he (Allen 1934a) reported that "nearly two-thirds of the rookery appeared to be composed of White Ibises." He "finally decided that one million adult birds, all species combined, would be a reasonable estimate of the population at the time (of his) observations." He reported the colony was 100 yards wide by one quarter mile long, and later it was reported to him to have increased to one-half mile long. Allen (unpublished field notes, NPS files) had attempted to validate his estimate by a nest count, estimating up to 12 nests/ft 2. Taking coverage at 180 yards by 3/4 mile (80 yards wider and 1/2 mile longer than he actually saw), he calculated that 240,000 yds 2 at 2 pair/ft 2 would equal about 1,000,000 birds. (Actually, such a calculation results in an estimate of 8.5 million birds). On May 30, 1934, just one month after Allen's incredible report, F. D. Roosevelt signed the bill authorizing Everglades National Park (Blake 1980).

Allen periodically re-estimated the high numbers he initially stated. In 1936, he reported to the American Ornithologists' Union that he saw 800,000 birds (Allen 1936). In 1939 he wrote a letter to Dr. Ira Gabrielson on the subject of the Everglades park in which he stated, "At its height the Shark River rookery has been estimated to contain upwards of 250,000 birds" (unpubl. NPS Files). In the late 1950's, he returned to the high counts, stating "The figure was certainly in excess of 500,000, and may have been twice that" (Allen 1957). He also admitted that "it was an utter impossibility to arrive at anything resembling an accurate total of the number of adult birds present" (Allen 1957). In a 1958 interview with the Miami Herald (May 4), he is reported to have recalled "The white Ibis there was too numerous to count. We gave up between 450,000 and 500,000 birds." He also estimated from these and from a "number of colonies in that region during 1931-1939" that "the total number of wading birds of all species ran into the hundreds of thousands" (Allen 1958). This statement seems rather modest in light of his original account.

Allen used the image of massive bird numbers elsewhere too. He began one article with the vision of a "bird community housing many more than ten times 10,000 Ibises alone!" He then relayed the actual report of the observer, Alexander Sprunt, Jr., who stated that "The very idea of attempting any count of this rookery was laughable. It cannot possibly be counted from the surface. It would take dozens of boats and observers, for it covers such a tremendous area that anything but an aerial view would be utterly confusing" (Allen 1937a). In the next issue of Bird-Lore, Allen wrote, "readers will recall the account in the issue for May-June (p. 226) of an enormous White Ibis rookery, containing possibly as many as half a million birds" (Allen 1937b). By 1939 the image was established: "readers will remember that there was an enormous rookery of White Ibis at a point on the St. Johns River, estimated by Mr. Sprunt to contain roughly half a million individuals" (Anon. 1939). Sprunt (1954) did not recall such a number in his own account. He stated that of two enormous concentrations of White Ibis he observed in the late 1930's (one near Lake Washington and one at the headwaters of Broad River) "populations of these rookeries ran from 50,000 to 60,000" birds.

Even the wardens, whose livelihoods and lives were at stake, did not augment the water-bird numbers to anything near one million. If Allen's credibility is to be accepted, one has to decide which figure to choose, and we find no basis choosing the one million. Robertson and Kushlan (1974) estimated 1.2 million in 1935, but offered no direct reference for this figure. Therefore, unless a new, valid source is uncovered, we must reject the million figure as a reliable estimate.

1940's and 1950's

The National Audubon Society (its name changed in 1940) continued to support wardens in southern Florida until

July 1, 1946 (Sprunt 1954). Although an enabling act had been passed with an amendment in 1937, the national park did not open until December 9, 1947. For a decade after responsibility passed to the Federal government, very little quantitative information on numbers of nesting wading birds was collected. Wardens, however, continued to count west coast roosts, not initially included in the park's boundaries. These reports of coastal roosts generally ranged from 1,000 to over 80,000 birds (unpubl. warden reports, NAS files; ranger reports, NPS files). Because these censuses were systematically conducted by counting the birds flying into their evening roosts on coastal islands, they provide a credible record of roosting numbers. They usually represented composite species totals, rather than just White Ibis, and are about the same magnitude as Sprunt's (1954) recollections. Alexander Sprunt was able to report the following: "Truly the egrets . . . today are probably in a better state than they were a hundred years ago" (Sprunt 1954). In 1956, based on an appreciation of its importance to wading birds in the summer and fall, the Gulf Coast was added to Everglades National Park.

From 1957 to 1960, the National Audubon Society and Florida Audubon Society conducted ground and aerial surveys of Florida water bird colonies. These surveys found more colony sites than had ever been known before; and, discounting the unsupportable numbers reported by wardens and Allen in the 1930's, these surveys also found the largest cumulative total nesting numbers of most species ever reported. Thus, the early 1960's surveys provide the historic base-line for nesting population trend data for those species consistently surveyed. Immediately following these surveys, in 1962, levees were completed across the Everglades, isolating the Park from its water source to the north. Thus, the long-discussed effects of water management finally began to occur in fact. The next comprehensive ground and aerial survey was sponsored by U.S. Fish and Wildlife Service in 1974 and 1975. Perhaps because of more participants and funds, a record 42 colony sites produced a total of 129,800 nesting wading birds, 43% composed of White Ibis, and 26% of a relatively recent newcomer, the Cattle Egret (Kushlan and White 1977). Having no previous, comparable survey on record, this survey resulted in the base-line population levels for Great and Snowy egrets, and for Tricolor and Little Blue herons.

So, What are the Historical Numbers?

During the late 1800's and early 1900's, plume and bird skin trade took a terrible toll on particular bird species. In southern Florida the most observable ravages were seen in bird colonies and roosts along the coast. Birds most written about were colonial water birds. Snowy Egrets and Great Egrets were apparently most heavily sought for their thirty-two dollar per ounce egret plumes (Hundley 1963, Cooke 1913, Chapman 1922). What is actually known about either one of these species' historical numbers is scant. The exorbitant 15,000 Great Egret and 40,000 Snowy Egret counts prior to the mosquito plague (Holt 1933b) stand quite alone in history. Unpublished Audubon warden notes provide such subsequent high numbers as 7000 Great Egrets in a single Gulf Coast roost, 1935, and 5000 Snowy Egrets nesting at Shark River in 1938. These historical highs are lower than the results of the more recent surveys of 1974-75, which yielded 9,200 Great Egrets in 34 colonies and 10,300 Snowy Egrets in 23 colonies throughout southern Florida (Kushlan and White 1977).

Two herons, the Tricolored and Little Blue, have small, dark plumes. The former brought at least a small profit (Scott 1887) but neither were very effected by the plume trade (Chapman 1922). Wardens reported 40,000 Tricolored Herons to Holt (Holt 1933b), and although Little Blue Herons were not noted in this grandiose number, they had already gained prominence in a warden's 1931 unpublished account of 10,000 in a Gulf Coast roost. Subsequent (or alternative) highs from early times are 4,275 Tricolor Herons in 5 roosts and 2 rookeries on the Gulf Coast in 1936, and 2000 Little Blue Herons roosting in a the Gulf Coast, 1932. Recent highs are 9,800 Tricolor Herons in 22 colonies in southern Florida during the 1974-75 survey (Kushlan and White 1977) and 809 Little Blue Herons in 1981 in

Everglades National Park (unpubl. NPS files).

Historically the closest synonym for wading bird was White Ibis. This species was used for evidence of the plume trade's barbarity, to demonstrate the effectiveness of the Audubon wardens' protection, and simultaneously to provide the "natural spectacle" that would be preserved in establishing a national park in the Everglades. Quantities of the same species at Shark River and at Gulf Coast roosts were thought to reflect effects of floods and droughts amplified by drainage projects, and helped influence the inclusion of the Gulf Coast into the current Park area. In addition to the 250,000 and 666,000 estimates (Holt 1933 and Allen 1934, respectively), there were several estimates of 100,000 ibis roosting and nesting in the 1930's and 1940's (Howell 1932, Audubon wardens 1936, Peterson and Fisher 1955). From the 1950's to 1981, the highest nesting count for southern Florida has been 56,000 White Ibis in 1974(Kushlan and White 1977). Aerial roosting surveys covering the same Gulf coast and interior within the Park boundaries suggest a recent trend. In 1977, we counted 53,000 White Ibis in 14 roosting sites; by 1979 3,600 White Ibis were counted in 7 roosts, and in 1982 three remaining sites contained 2,400 White Ibis. Perhaps the birds have shifted. If so they have abandoned an area historically important for post nesting roosts since the late 1800's.

The only other species for which long-term data exist is the Wood Stork. Kushlan and Frohring (1986) showed that erroneously high report of Wood Stork numbers have colored an understanding of its local population trends. Documentable historic numbers are about 10,000 pairs in the 1950's and 1960's, concurring with Sprunt's (1954) evaluation of them "enjoying a rather static condition of well-being in Florida." As in the White Ibis, a declining trend is documentable for Wood Storks sometime after the levees were constructed through the Everglades in 1962.

CONCLUSIONS

The image of historically large wading bird concentrations in southern Florida has been tremendously effective in inspiring social and political conservation action there and nationwide. The image of a million or more individuals is compelling indeed, and who can dispute any number? However, repeatedly, the very people on whom we rely, as well as the less reliable sources, concurred they could not, or did not actually, count the birds. We simply do not know how many of the various water bird species inhabited southern Florida historically.

The lessons learned in critical analysis of one region's records may apply elsewhere. Though popular causes may benefit from embellishment, population analysis and resources management must use historical information with caution. It is past time to accept the term "wading bird" as a censusable, manageable population unit, because there is no such entity. To treat any, some, or all species as a single group is to further postpone implementation of appropriate conservation. And it is definitely past time to accept any but rigorous, comparable censuses as bases for trend analysis and management action.

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LEGAL DESCRIPTION

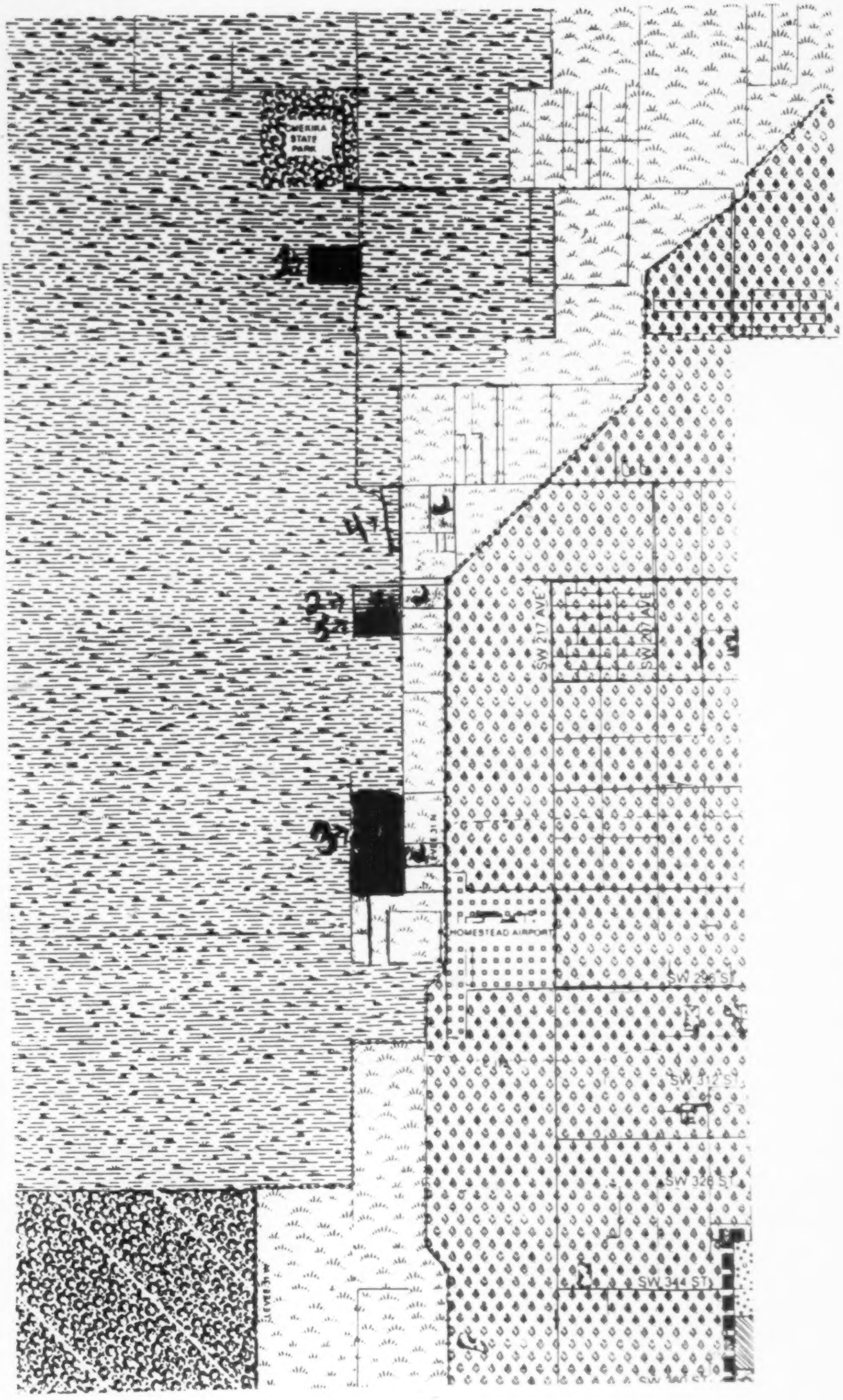
1. The 80 acre Mitchell Grove, Dade County, Florida; Tracts 7 & 8 of Blocks 1, 2, 3, & 4, Grossman Tropical Farms Company Subdivision into 10 acre Tract of Section 36, Township 55 South, Range 37 East, as recorded in Platbook 30, page 54.

2. The F. H. Rutzke & Sons, Inc. 33.45 Acre grove; North ½ ot North ½ of South East ¼ Lying West of Levee-L31N R/W, Folio -- 30 - 6831 - 000 -0050 - S31-T56-R38----DYKE-MANGOS.
   The F.H. Rutzke & Sons, Inc. 33.80 Acre grove; South ½ of North ½ of South East ¼ Lying West of Levee-L31-N R/W Folio--30-6831-000-0051---- S31-T56-R38----DYKE MANGOS.

3. Section 31 56 38 322 AC M/L, West ½ of SEC or 9864-0125 1177 1, Folio--30-6831-000-0010.

4. That portion of the West ½ of Section 18, Township 56 South, Range 38 East Dade County, Florida; being more particularly described as follows:
   Commence at the Southeast corner of the Southwest ¼ of said Section 18; thence run North 00 23' 12" West along the East line of the West ½ of said Section 18 for a distance of 698.39 feet to the Point of Beginning of the parcel hereinafter described; thence continue North 00 23' 12" West along the East line of the West ½ of said Section 18 for a distance of 4632.11 feet to the Northeast corner of the Northwest ¼ of said Section 18; thence run South 89 26' 39" West along the North line of the Northwest ¼ of said Section 18 for a distance of 301.35 feet to a point; thence run South 01 40' 01" East for a distance of 4632.38 feet to a point; thence run North 89 36' 48" East for a distance of 197.85 feet to the Point of Beginning; containing 26.54 acres more or less.

5. Section 19 56 38 80 AC M/TOWN, South ½ of NW ¼ or 12648-2677 0985 2, Folio--30-6819-00-007


CHEKIKA STATE PARK
4
4
2
3
3
HOMESTEAD AIRPORT
SW 217 AVE
SW 207 AVE
SW 296 ST
SW 312 ST
SW 328 ST
SW 344 ST
SW 360 ST

Senator **Bumpers**. Thank you, Mr. Humble.
Mr. Balman.

STATEMENT OF DAVE BALMAN, EVERGLADES COORDINATING COUNCIL

Mr. **Balman**. Yes sir. My name is Dave Balman. I am here representing the Everglades Coordinating Council. That is a group of 18 different sportsmen organizations throughout Florida. And also, I am president of the Airboat Association of Florida, and my grandparents were some of the pioneers of Florida, and my father was a law life officer in the Everglades area from 1951 to 1963.

And I know the area like the back of my hand. I am also on call from Dade County Fire and Rescue when a plane is down, or someone is lost in the Everglades.

And, just to talk about some of the things on this East Everglades Task Force that was formed by the Governor, I am going to deviate a little bit from the record, if you do not mind, because I want to talk about some of the other things that people have said.

We have been working in all areas to protect water, widllife and recreational activities for many years. We want to protect this area. We had members sit on the first three East Everglades committees, but we were not invited to the last committee which recommended expansion of Everglades National Park.

Sportsmen have no representation on this committee, even though we requested it. The findings and actions of the first three committees resulted in the East Everglades being what it is today. Acceptable enough for the National Park to want it.

In doing so, we have been running a specially built offroad vehicle, such as airboats and other vehicles, in this area, before there was an Everglades National Park and out members helped to lay out the boundaries of the Everglades National Park.

There were two non-government people on the last East Everglades Committee representing the Audubon Society and the landowners of the 8 square miles being exempted. Sportsmen were not allowed to participate on an equal footing of this Committee.

I would just like to sum it all up. A lot of these folks in here today, Mr. Bumpers, stated that this was going to help the park. Sir, I have lived there all my life. I have gone through the area by airboat many times and it just shocks me to the bone.

I have a map here showing that even the man from the water management did not know of all the trails in the area. You can cross the State of Florida by airboat and it does not harm anything.

Recently, the Audubon Society was given a grant to study the use of offroad vehicles and the airboat was in there as number one as least damaging. They state right in there that they ran it over the same spot a hundred times and did not have enough time, money nor fuel to keep going because it does not touch the ground anyhow.

And, most recently, in the past few years, among other forms of mismanagement in the park that caused them to lose 90 percent of their wildlife, they spent another $6 million to raise the road going to Shark Valley Observation Tower. I have maps over here and can point it to you on the map.

When in actuality, if they would allow the use of airboats in Everglades National Park, then the general public could actually see Everglades National Park, instead of not less than maybe 5 percent of the whole deal is only visible.

And as you see on the map, there is only Sharp Valley Observation Tower and the road going down to Flamingo. Friends of mine homesteaded Flamingo. One fellow I know was born there. The mosquitos are rough, you really got to hand it to them folks.

I would like to see two amendments on this, and I have some maps here that I would like for you to have as part of the record, and some petitions, and an airboating magazine and some other things, if I could make that part of the record.

I would like to see the boundary on the stairsteps unit given back to the use of the public by airboat that goes through the big cypress. And instead of grandfathering and phasing out the use of airboats in the Everglades area, I would like to see it say that the use of privately-owned airboats will never be banned in the national park system or in the expansion thereof. Because it is an ideal vehicle for the public to see this area without building roads, without spending millions of dollars.

And, another thing, on the East Everglades area, it will not benefit the park, because in the park they cannot manage for wildlife habitat.

Recently, the Game and Fish Commission of Florida released some panthers into the park to study them and it was not shortly thereafter that they left the park. It seems as though they found better living quarters on the private lands of the East Everglades.

And, we have been watching them. And we have seen them for years and we do not bother them; we enjoy seeing them. We are just as much bird watchers and star gazers as anybody. Hunting is an aspect of the area, but I have hunted throughout the whole United States. I have been to Wyoming and Montana. I would rather hunt that sawgrass area.

Even with the use of the special equipment required, it is like trying to find a brown needle in a brown haystack. It is the most fun just trying to find them because it has been remarked that people have flown over and have not seen any.

Well, I have flown over many hours in a helicopter and I have seen very few, too. And I see even fewer in the National Park.

I thank Mr. Graham and all for inviting me, and thank you all, and if there are questions.

[The prepared statement of Mr. Balman follows:]

June 20, 1989

Testimony - Everglades National Park Expansion and Other Issues

Honorable Chairman and other Honorable Committee Members:

My name is Dave Balman. I am here representing the Everglades Coordinating Council, a council formed by sportsmen/conservation clubs in south Florida. Our members live in Naples, West Palm Beach, Dade County and the Florida Keys. I am also President of the Airboat Association of Florida, and a native Floridian whose grandparents were among the first settlers to south Florida.

We have provided you with a copy of a few of the conservation activities in which we have been involved during the last few years. I hope you will find this list impressive.

As you know, the East Everglades is important to Everglades National Park because of the water that crosses the area. We recognize this as being the primary resource of the area and want very much to provide protection to this resource and to the other attributes of the area.

We are very concerned that if this area is given to the National Park Service, as an addition to Everglades National Park, it will not have active habitat management that will benefit the area. The lack of habitat management by the National Park Service is a problem, not only in Everglades National Park, but in other parks throughout the United States. One of the reasons for so much wildlife, including the panther, in the East Everglades is because the 1.5 million acres comprising Everglades National Park has not been managed properly. At one time, Everglades National Park had some of the best deer hunting in south Florida. Today, without habitat management, the wildlife hav found better living conditions on private lands in the East Everglades.

For 30 years we have been using airboats and specialized off-road vehicles to access the area to hunt, fish, frog, and sightsee. It is amazing that these activities certain organizations and agencies are trying to stop have not harmed, degraded or damaged the area. The area is in good enough condition though to be considered appropriate by the National Park Service and its boosters.

Today we are in the same situation we were in during the 1970's concerning the Big Cypress National Preserve. We have learned that it is difficult to work with the National Park Service and to obtain an interpretation of the laws.

We strongly support making the East Everglades a fish and wildlife refuge with strong state's rights regarding habitat management, hunting, fishing, frogging, method of take, access and other recreational activities. This would accomplish the goals of the "Save the Everglades" plan which, when first introduced, called for the area to be a buffer to Everglades National Park. The expansion of Everglades National Park does not create a buffer; expansion merely moves Everglades National Park's problem to the edge of town which will create additional problems.

We would like to point out that most of the land in the nation brought into public ownership has been closed to consumptive activities, either directly or indirectly, by oppressive regulations and severe reductions in access. We believe it is necessary for this committee, the Senate Committee, and the President to take a stand on this problem, and pass a law that requires there be no net loss of huntable acres of land to local traditional and customary techniques.

The above position is important to consider when one realizes there are almost 900 people a day moving into Florida, and almost 80% of these people are moving to south Florida. Thus, every acre of land, be it swamp or upland, used for recreation today is a necessity for today's and tomorrow's citizens. We believe a wildlife refuge with strong state's rights towards management will satisfy all of the above concerns. We know that if the National Park Service obtains jurisdiction of the East Everglades under any land title these concerns will not be solved, but compounded. While the supporters of the Park think they are protecting the area for the enjoyment of future generations, they really are not because future generations will not be able to access the area to enjoy if the area is acquired by the Park.

We have been working to protect all the resources of the area - water, wildlife, and recreational use for many years. We want to protect the area. We had members sit on the first three East Everglades committees, but were not invited to the last committee meeting which recommended expansion of Everglades National Park. Sportsmen had no representation on this committee even though we requested it. The findings and actions of the first three committees resulted in the East Everglades being what it is today. Those committees recognized the importance of south Floridians' traditional and customary recreational activities in the East Everglades. It should also be pointed out that the two non-governmental people on the last East Everglades Committee represented the Audubon Society and the land owners in the eight square miles being allowed exemption. Sportsmen were not given the opportunity to participate on an equal footing with this committee.

We do appreciate the idea of allowing certain members of the Airboat Association of Florida to continue minimal use of the area. I say minimal because the very nature of the Park Service predicates man and man's motors in a wilderness area be removed or severally inhibited. However, we do not understand how this can occur since we have not read where the Club House will be exempt from purchase. Mind you, many of our members received personal letters from former Governor Graham and certificates of recognition for helping him with his "Save the Everglades" program. It seems ironic that the very people who have done so much to protect the area, and who love it, are the ones paying the highest price if this bill is passed as it is now written.

We ask that you modify the bill to allow for the exemption of the club grounds of the Airboat Association of Florida. This property was in existence before water management programs and does not need flood protection. If the grounds are flooded, U.S. 41 - the Tamiami Trail - will also be flooded. These grounds do not interfere with the hydrology of the area.

Gentlemen, our proposal follows the guidelines the World Wildlife Fund has supported. That is, areas where there is no development, little human activity, and surrounding areas used and managed by man. On the west side of Everglades National Park we have a new wildlife refuge, on the west and north side we have the Big Cypress National Preserve, and on the east side we should have the East Everglades Wildlife Refuge, with state's rights to manage the area.

At this time, I would like to submit to the Chairman and Committee members approximately 700 letters collected by one of our members on this matter. Once people have been in the area, they do not want to see acquired for the Park. As you can see, there are people from many parts of the country, and the world, who want to see the area protected from drainage, but do not want to see it become a park.

Petitions circulated a short time ago have been sent to Governor Martinez. The approximately 1,000 signatures requested he change his support to one that would be more favorable to the public in south Florida, and allow the area to be used as it is today.

We also have serious concerns about the use of Federal Land Acquisition personnel, assistance and procedures to take land at the Governor's request in the entire center of the state of Florida. It is our concern that this will lead to the taking of land without due process, and without consideration of our concerns for the use of these properties once they are acquired. Will this lead to Everglades National Park extending to the top of the Kissimmee River?

I would like to present you with a copy of a newspaper article recently published where the South Florida Water Management Board states they will not give the Park land if the Park does not drop its lawsuit. The U.S. Attorney even points out that the taking of the East Everglades will not save the Park if the upstream water practices are not changed. Yet, it is our understanding the South Florida Water Management Board wants to attach an amendment to this bill that will prevent them from being held accountable for polluted water entering the Park. We ask, how will making the East Everglades part of the Park and allowing polluted water, currently the basis of the Justice Department's lawsuit, save Everglades National Park? It will not.

Since this bill is called a boundary change for Everglades National Park, I would like to suggest a boundary adjustment in the Stair Step Unit to allow Everglades National Park's boundary to follow the mangrove line. This would allow the opening of the Stair Step airboat trail that was in use before the area became part of the Big Cypress National Preserve. Past Superintendent Morehead stated that this would give Everglades National Park a little more land (show map). This action would once again open up vast acres of land to the sportsmen who use the Big Cypress National Preserve; an area used before the preserve was created.

We appreciate Senator Graham's invitation to address this committee, and hope the committee will consider our requests to modify this bill so the East Everglades can not only be protected, but also enjoyed by future generations. I also hope that you have learned something about the south Florida sportsmen I represent.

Do you have any questions?

Thank you.

Dave Balmer

Water managers offer swap in court fight with Lehtinen

By RANDY LOFTIS
Herald Staff Writer

Regional water managers might not donate 17,000 acres in Dade County for the expansion of Everglades National Park unless U.S. Attorney Dexter Lehtinen drops his anti-pollution lawsuit against South Florida's water agency, several agency board members said Thursday.

Lehtinen immediately rejected any idea of dropping his suit — which accuses water managers of polluting the Everglades with drainage from sugar cane farms — in exchange for land.

The suggested swap won backing from at least five of the nine members of the South Florida Water Management District board, all appointed by Gov. Bob Martinez.

No formal vote was taken on the idea, but board members, under increasing pressure from Lehtinen's suit, sent the federal prosecutor a clear message in their comments: The district's cooperation in expanding the Everglades park — a proposal now before Congress — might depend on resolving the court fight over Everglades pollution.

"We're being sued by the very park that's asking us to donate . . . land," said board chairman James F. Garner, a Fort Myers lawyer.

Lehtinen will be willing to discuss such a swap "if he's really interested in the future of the park," said board member Ken Adams of West Palm Beach, who suggested the idea.

"We are not the enemy," agreed board member Mike Stout of Windermere, saying he found the swap idea "exciting."

Lehtinen didn't find it exciting. In a statement released by his office, he turned the deal down cold.

"Expansion of the park is insufficient [to resolve the suit] because it does not address the source of the pollution," Lehtinen said. "Pollution that begins in and around the Lake

Turn to SUIT / 5B

Water managers suggest swap

SUIT / *from 1B*

Okeechobee area must be addressed by strategies to reduce and control the pollution at its source.

"The most positive proposals," he said, "would include setting aside land within the Everglades Agricultural Area" as retention and filtering areas to clean up nutrient-laden farm water.

District Executive Director John Wodraska has suggested such an approach, but the district board, which approves all policy matters, has not discussed it.

The district's 17,000 acres in West Dade, bought through the state's Save Our Rivers conservation program, became a bargaining chip in the pollution fight as the board discussed Everglades issues.

One was the district's testimony next Tuesday before a U.S. House subcommittee considering the Everglades National Park expansion bill. The measure would widen the park's boundaries by more than 100,000 acres in Dade County, taking in a crucial natural flow-way, Northeast Shark River Slough, that was left out when the park was dedicated in 1947.

The bill calls for an 80-20 federal-state split on expansion costs. The district's land would constitute much of the state's share.

District officials said they'll tell the House Subcommittee on National Parks that they won't support the bill without language recognizing the district's multiple goals — flood control, water supply and environmental enhancement. That's meant to block any further anti-pollution suits regarding the expansion area.

Other proposed language would secure Dade County's right to draw water from its planned West Dade well field. Withdrawals during extreme droughts could remove water from the park expansion area, some experts say.

eeuse5.24.27

USE REPORT OF THE NORTHERN PORTION OF THE EAST EVERGLADES COMPILED BY DAVE BALMAN, PRESIDENT OF THE AIRBOAT ASSOCIATION OF FLORIDA AND OTHER LONG STANDING MEMBERS.

The club has been in existence before 1951 and co-operating with all agencies

485 members are in the Airboat Association of Florida

485 boats or more are in the club

use

60 days of deer hunting a year, heavier on wk ends, man-days of use per wk/end day 100 average, harvest average per year 20-30

one year when the antler length was reduced to 1 inch there was 71 deer removed.

this is favorable a harvest with similar Everglades areas.

duck season, used every day, heavier on wk ends, man-days of use per wk/end day 20
50% have limit out

snipe, longer than duck, used every day, heavier on wk ends, man-days of use per wk/end day 20
10% limit out

sighting seeing, average use per day 500 counting all concessionaires plus club members all year long

camping, heavier on wk/ends, man-days of average use per wk/end day 30 to 40 people when there is water to navigate the area.

photographing, most sighting seeing users photograph the areas wildlife and habitat.

bird watching, same as above

star watching, planetarium enthusiast, no moon or special stellar activities a year 20 people

frogging, year around when there is water, how many people per man-day of wk/end use 20
high average take 4/5 lbs of legs
low average take 1 lbs of legs

fishing, year around
low water levels the use of ground contact vehicles is needed; heavier wk ends, man-days of use per wk/end day 40

club grounds
- target range
- skeet range
- camping
- bar-b-que
- pic-nicks
- club meetings
- urban escape
- Boy Scouts
- Girl Scouts
- Out of Country tourist
- Swedish civil air patrol
- camera film setting
  - "Mean Season"
  - "Invasion U.S.A."
  - Commercials
  - Japan's Game Show
- Dade/Florida Photographic contest by Ch. 7 contestents used the grounds
- staging area for emergency rescue for downed air craft
- staging area for rescue workers looking for lost people
- law enforcement staging area and storage area
- State D.O.T. storage area and staging area
- SFWMD storage of equipment
- Helicopter pad available for use by appropriate people
- young people use the area to escape the pressures of drugs in town
- storage of members recreation equipment

This use data was taken form the northern 12 miles of the area, little is known about the area south of this by Dave Balman President of Airboat Association of Fla. and other long standing members.

Everglades Co-ordinating Council
7901 WEST 25TH CT., HIALEAH, FL 33016
TO COORDINATE THE CONSERVATION EFFORTS OF SOUTH FLORIDA SPORTSMEN'S CLUBS

EE [illegible]RS5 25.27

June 20, 1989

Honorable Senators on the
Senate Sub-Committee on
Interior Affairs

Dear Senators:

This organization is created to help sportsmen to do their part in protecting the environment through good conservation laws, regulations and policy development. The following items are some of the many accomplishments and issues we have participated in during the years.

1. On several occasions our members saved the Holey Lands from being used by vested interested as a "cesspool". This activity has required an expenditure of many thousands of dollars and many more man hours.

2. Our members actively worked to save the Rotenberger area which required many people to travel to Tallahassee on buses to seek the support of the Florida Cabinet to have the area purchased and protected by endangered lands funds.

3. Our members worked to obtain endangered lands funds.

4. Our members worked to assure passage of the Conservation and Recreation Lands bill and to obtain funding for this act.

5. Our members worked to assure passage of the Save Our Rivers bill and to obtain funding for it.

6. Our members initiated the Big Cypress National Preserve enabling act.

7. Our members worked to assure passage of the Big Cypress National Preserve Addition while the National Park Service was trying to remove hunters and traditional recreation activities.

8. Our members have been asked by the previous State administration to support their agenda in public meetings.

9. Our members have been appointed to numerous committees charged with ways to protect our wet lands all over the State.

10. Our members served on the first two East Everglades committees.
11. Our members have been involved in two cases of litigation against an oil company working in the Big Cypress National Preserve which resulted in the first substantial Florida Panther research funds and other environmental protections.

12. Our members completely funded a Southeastern Regional Governor's conference trip and luncheon into the Everglades from S.R. 84 (I-75) which helped bring attention to the area.

13. Our members provided, at our expense, a tour of the Everglades for members and guest of the Everglades Conservation Coalition.

14. Our members have provided free tours of the East Everglades for Orange Bowl teams and dignitaries.

13. Our members have worked for the renewal of the endangered species law even while the National Park Service was using the law to remove us from the Big Cypress.

14. Many of our clubs have been recognized by the National Wildlife Federation several different times as Outstanding Conservation Club of the year.

15. One of our members established the Florida Game and Fish Commission's "REWARD" program.

16. Our members have built buildings for the J.W. Corbitt Youth Camp.

17. Our members have sponsored needed children to State Environmental Youth Camps.

18. Our members have helped provide minority school children trips to Everglades National Park.

19. Our members have sponsored Florida teachers to project wild work shops.

20. Our members have sponsored Florida teachers to the American Wildlife Leadership School in Jackson Hole Wyoming.

21. Our members have created and funded a private environmental youth camp in the Ocala area.

22. Our members have given scholarships to college students studying in environmental disciplines.

23. Our members have provided tours for National Outdoors Writers into the Big Cypress National Preserve.

24. Our members worked to initiate and pass the Kissimmee Restoration Bill.

25. Our members spent huge sums of money and time developing water holes and wildlife islands in the Everglades after the disastrous 1971 fires burned away much of the upland habitat.

26. Our members spent huge sums of money and time planting thousands of native plants in serious burned areas and on wildlife islands.

27. Our members have assisted in the apprehension and prosecution of companies dumping industrial waste in the East Everglades.

28. Our members have assisted in the apprehension and prosecution of poachers all over South Florida.

29. Our members have lost court cases against the agencies being charged by the justice department at this time and had to pay $10,000 for the agencies court cost.

30. Our members have actively worked for good wildlife management practices in every area of the State of Florida, i.e. we are working to stop a 500 kw power lines from traversing the Corbitt wildlife management area.

31. Our members found and reported violations of oil exploration permits in the Everglades.

32. Our members have used their equipment, time and money to assist in fighting fires in the Everglades.

33. Our members have used their equipment, time and money to assist in habitat management work at the request of the State and under their supervision.

34. Our members have used their equipment, time and money to assist law enforcement agencies in search and rescue missions for downed planes, lost people, escaped convicts and murders.

35. Our members have used their equipment, time and money to assist in wildlife rescue work.

Our members were working to save the Kissimmee-Everglades-Big Cypress basins before these words became politically popular. We have tried to protect these areas from drainage for many years. We have also worked to make sure the sportsmen were not locked out of the area by either regulation or land classification.

Please share this information with other legislators so that they will better understand this organization's intense love for the Everglades and Big Cypress.

Sincerely,
Dave Balman
Dave Balman
Vice-President

Senator **Bumpers**. Thank you, Mr. Balman.

Mr. **Balman**. You wanted to know how many airboats there were in the whole State of Florida or in that area?

Senator **Bumpers**. In that area.

Mr. **Balman**. In that general area, Mr. Bumpers, there are approximately 1,000 to 2,000, and it is visited daily by seven airboat rides, two guides and outfitters for just sightseeing, fishing, frogging, photography, thousands of people a day; when there is water, there. Right now, for the past few weeks I have been in the area fighting fires and helping them with various types of equipment. My equipment from the Airboat Association Club grounds, fighting fires and using that.

We have a large helipad in the back which our Club grounds are on. We do not interfere with the sheet flow. We have caught other people dumping human sludge into the east area of the Everglades and if you did not have the airboat, you would never have been able to catch them.

We had them prosecuted and all that. It made paper in the Miami Herald. We do look out after the area.

Senator **Bumpers**. Thank you very much Mr. Balman.

Mr. Fuller.

STATEMENT OF MANLEY K. FULLER, PRESIDENT, FLORIDA WILDLIFE FEDERATION

Mr. **Fuller**. Thank you. I am Manley Fuller, president of the Florida Wildlife Federation. Today I am representing the Florida Wildlife Federation and I am also submitting written testimony for the National Wildlife Federation. I have copies of their testimony here, which I will provide to the committee.

The Florida Wildlife Federation supports the legislative intent of this act to acquire and protect the Everglades habitat and to restore more natural hydropatterns to the east Everglades and Everglades National Park. And I really want to reiterate that because there has been some statements by members of some other organizations that we were not supportive of the intent of the legislation and we, in fact, are. So I want to make that very clear.

We do differ from some of the previous speakers in that we feel that continuation of traditional recreational activities in the area, such as hunting, fishing and frogging, can continue and not, at the same time that hydrological restoration, full restoration of the park would take place. And we would argue that other management regimes that we would like the committee to consider would not adversely affect the national park or water flow to that area.

Within my testimony, which I will just summarize because it is fairly lengthy, we suggest that the committee examine an amendment proposal on page four of my testimony, which we believe would accomplish this objective. The language that, of our proposed amendment is taken from the West Virginia Rivers Act of 1987, which originated in this, in, I believe, originated with this committee and was promoted by Senator Rockefeller.

In that amendatory language, the Department of Interior and, specifically in the case of the West Virginia Rivers Act, the National Park Service, is the lead agency but the state of West Virginia retains authority over fish and wildlife management. And we would like the committee to consider looking at that idea for this legislation.

I want to again say that we strongly support Everglades protection and restoration, but we do not feel that, properly regulated, consumptive wildlife-related recreation adversely affects the ecosystems.

The question has come up that, regarding the level of use of the area. Mr. Balman is a member of the Airboat Association of Florida and they have approximately 500 members and have also been contacted by a 600- to 700-member organization in Homestead, Florida, called the Game and Fish Association. And they have indicated to my organization that they regularly utilize this area for fishing, frogging, hunting, nature observation and outdoor education for youth.

And the Florida Game and Freshwater Fish Commission, in a recent letter to Mr. Tom McVicars of the South Florida Water Management District in response to questions, which, I believe Mr. McVicars has contacted the Game Commission due to some inquiries from a House committee about utilization. There is an attachment, a letter to Mr. McVicars from the Game and Freshwater Fish Commission summarizing their assessment of the value of the area for the traditional users.

One thing that has not been brought up today, I do not believe, is that much of the area is currently in the east Everglades wildlife and environmental area, and this area is currently managed for regulated public utilization. And the position of the wildlife agency was that continuing to allow these activities along with the management of endangered and threatened species would not jeopardize water delivery plans to the Everglades National Park. So, if you would, I would like you to note that for the record.

We feel very strongly that the area's wildlife resources and natural value should be protected. We would support regulations, either under state or federal administration, that would prohibit public access to wading bird nesting areas. We feel that the state of Florida's wildlife management agency is composed of highly competent professionals. Recently, the whooping crane recovery team selected a wildlife management area administered by the Game and Freshwater Fish Commission as a site for whooping crane releases.

So we support the federal acquisition, but if there is any way to continue traditional recreational use subject to professional regulation within the area, we would very much like to see that. And I would be glad to take any questions.

[The prepared statement of Mr. Fuller follows:]

FLORIDA WILDLIFE FEDERATION
Affiliated With National Wildlife Federation

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MAILING ADDRESS: P.O. BOX 6870, TALLAHASSEE, FLORIDA 32314-6870
PHONE: 904-656-7113

MANLEY K. FULLER, III
President

TO: PUBLIC LANDS SUBCOMMITTEE OF SENATE ENERGY AND NATURAL RESOURCES COMMITTEE

FROM: FLORIDA WILDLIFE FEDERATION

DATE: JUNE 20, 1989

SUMMARY OF TESTIMONY SENATE BILL 724

Florida Wildlife Federation supports the legislative intent of this act to acquire and protect the Everglades habitat and to restore more natural hydropatterns for the East Everglades and the Everglades National Park. We are however, seeking amendments which would have the area known as the East Everglades be designated as either a National Wildlife Refuge, National Preserve, or a National Recreation Area, of which each of these designations would allow a continuation of traditional recreation activities such as hunting, fishing, and frogging to continue subject to state regulation.

Within the testimony I presented an amendment proposal (see page 4) which would accomplish this objective. The language is modeled after the West Virginia Rivers Act of 1987 in which the Department of Interior is the chief land manager with the state retaining activity over fish and wildlife management including fishing and hunting.

We strongly support Everglades protection, and restoration and feel that regulated consumptive wildlife related recreation can continue without adverse affects on the ecosystem.

We urge you to support the Federation's effort to amend the proposed legislation as described in our testimony.

We believe federal acquisition of the area is needed and we want to see an active role for the state wildlife management agency maintained in the area. Some have stated that our proposed amendment recommendations were not supported by a task force on the East Everglades and should not be part of this bill. We concur with many of the task forces recommendations but differ regarding managed consumptive fish and wildlife activities. We submitted names of six individuals who had served on earlier East Everglades study groups and who are knowledgeable and supportive of protection of the East Everglades ecosystem as well as understanding the importance of fishing, frogging, and hunting in the East Everglades to our South Florida members. None of our nominees were selected. For inexplicable reasons the Florida Game and Fresh Water Fish Commission which currently manages the area as the East Everglades Wildlife Management Area, was not given a seat on the task force. It is no surprise to us then that despite our comments and those of the state wildlife management agency the task force recommendations did not include provisions for retention of fishing, frogging, and hunting.

Those who questions our amendment proposals have also pointed out that the area is only used by a few recreationists. Approximately 500 members of the Airboat Association of Florida as well as their friends and associates feel otherwise and have indicated to me that they regularly utilize the area for fishing, frogging, hunting, nature observation, outdoor education for youth, and just escaping from the nearly urban environment. We are collecting information on activity levels within the East Everglades and will forward that information to you.

We also want the participation of the United States Fish and Wildlife Service and the Florida Game and Fresh Water Fish Commission biologists in determining water delivery schedules throughout the Everglades ecosystem, along with those of the National Park Service.

Your assistance in amending the legislation to incorporate our proposals would be greatly appreciated. We believe that it is very important for a variety of conservation interests to get together and fully support federal legislation to acquire, protect and manage the East Everglades habitat. We believe our proposals would do just that.

/attachment

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MANLEY K. FULLER, III
President

FLORIDA WILDLIFE FEDERATION'S TESTIMONY TO PUBLIC LANDS SUBCOMMITTEE OF SENATE ENERGY AND NATURAL RESOURCES COMMITTEE
SENATE BILL 724

June 20, 1989

RE: LEGISLATION ON EVERGLADES NATIONAL PARK PROTECTION AND EXPANSION ACT 1989

Mr. Chairman and committee members, thank you for this opportunity to discuss the views of the Florida Wildlife Federation (FWF) on the Everglades National Park Protection and Expansion Act of 1989.

The FWF and our affiliated clubs in South Florida are vitally interested in the protection and management of the South Florida Everglades ecosystem, including protection of the National Park by providing an essential buffer zone at the Park's northern and eastern boundaries. The FWF is one of the oldest and largest conservation-education organizations in Florida, with 10,000 members. The FWF is the Florida affiliate of the National Wildlife Federation. Included in our membership are a number of sportsman's clubs in South Florida whose members actively enjoy the recreational opportunities provided by the East Everglades. For some members, use by their families can be traced back several generations.

Florida Wildlife Federation members have been active for decades in protecting the wildlife of what are now known as the East Everglades, Big Cypress Preserve, and other wetlands management areas in South Florida. Our members are highly knowledgeable about the wildlife, plants, and rich history of the area, owing their knowledge to a genuine love of the land and what it represents to future generations of Floridians. The FWF along with the National Wildlife Federation played a keystone role in establishing the Big Cypress NAtional Preserve. We are proud to be a part of the efforts to protect the Everglades now as we were then.

The FWF fully agrees that the East Everglades wetlands must be placed into public ownership and managed in a manner that provides for the protection and management of water quality and quantity flowing into the National Park. Thus, FWF fully supports the proposed acquisition of East Everglades lands, and administration of those lands, by the Secretary of the Interior.

We believe that wildlife and fisheries should be managed in a manner that protects endangered and native components of the diverse Everglades ecosystem. Such management must involve eradication of invasive exotic plants, such as melaleuca and Brazilian pepper. Thus, we are recommending that an active, and hands-on approach to management be undertaken by the administering agency to ensure protection and enhancement of fish and wildlife populations.

Further, we believe that continued recreational use of the area is biologically acceptable, given reasonable regulation, and is needed to preserve the rich tradition of public enjoyment of the area. Such use must be managed in accordance with applicable state law and with the same amount of attention to sound scientifically based regulations given recreational use in any sensitive wildlife refuge or wildlife management area. In this context, we also believe that the traditional role of the state wildlife management agency in managing consumptive use of fish and wildlife must be maintained and be conducted on full cooperation with the federal land manager. Such state management, in cooperation with the federal land manager, would necessarily extend to regulating access and traditional forms of transportation for recreation.

S.B. 574 will provide much of what we believe is necessary to protect the Everglades National Park and the East Everglades. However, we are concerned that the bill as currently drafted will not provide the flexibility to conduct the hands-on management of the habitat that we believe is necessary to fully ensure improvement of water quality and quantity, enhancement of fish and wildlife, provide for control or eradication of exotics, and permit regulated traditional recreational use of the area.

To explore enhanced flexibility to achieve the listed goals we suggest that the committee consider several alternate management options for the acquired lands, all providing the Secretary of the Interior primary land management responsibilities. These options include management of the acquired lands by the National Park Service as a National Recreation Area or as a National Preserve, or management of the area by U.S. Fish and Wildlife Service as a National Wildlife Refuge. A brief discussion of each option follows:

--NATIONAL WILDLIFE REFUGE. Management of the area as a National Wildlife Refuge would provide the needed buffer to the park and would provide a link with other adjacent or nearby National Wildlife Refuges, such as the National Key Deer, Great White Heron, and Crocodile Lakes National Wildlife refuges to the south and Arthur R. Marshall Loxahatchee refuge to the north. In addition, management by the U.S. Fish and Wildlife Service would bring to bear the Service's considerable expertise on wildlife habitat management. Management by the Service will ensure the creation of active programs to protect and enhance endangered species, such as the Everglades kite, control exotics, and address water problems. In addition, the Service has a long tradition of working cooperatively with state agencies to maintain the traditional separation of federal and state roles in managing consumptive use of fish and wildlife. Consumptive use of fish and wildlife, and recreation that is consistent with protection of wildlife resources and the ecosystem, is easily accommodated by a National Wildlife Refuge.

--NATIONAL PRESERVE. Already providing buffer to the park's northern border is the Big Cypress National Preserve. The Preserve was established in clear preference to a National Park to ensure continued traditional uses of the area. This type of management unit could perhaps be the most attractive of the alternatives discussed, if not for considerable controversy over current management of the Big Cypress. In the years since passage of the landmark legislation establishing the Big Cypress Preserve, traditional recreational users have been edged out of the preserve. It is clear that traditional users of the Big Cypress believe that the Park Service is progressively limiting their use of the preserve without legitimate documentation. Legislation creating the recent addition to the preserve includes language to reaffirm the validity of traditional use as a purpose of the preserve and further clarify the role of the state in managing consumptive use of fish and wildlife. We recognize that some regulation is needed to protect resources and thus we support limits of access and consumptive use that result from sound biologically-based assessments and research. We believe that the State Wildlife Management agency has the professional expertise to determine appropriate harvest regulations within the Preserve.

Clearly, the East Everglades could be acquired as a National Preserve. However, to ensure that problems similar to those encountered in the Big Cypress are avoided, we recommend that specific language be inserted in the authorizing language to provide for flexibility in managing fish and wildlife populations, as well as to ensure continued recreational access and continued traditional uses. The language we recommend is an adaptation of language included in the West Virginia National Interest River Conservation Act of 1987 to protect recreation and the role of the state in managing fishing and hunting in several National Park Service managed areas in West Virginia. This adaptation of the West Virginia Act's language follows.

SAMPLE LANGUAGE REGARDING THE STATE'S ROLE

(Note: This language could be used regardless of which type federal management unit is proposed and is based in part on similar provisions in the West Virginia National Interest River Conservation Act of 1987.)

"The Secretary shall permit recreation, including fishing, hunting, and frogging on lands and waters within the management unit in accordance with applicable Federal and State laws. Nothing in this act shall affect the management by the State of fishing, hunting, and frogging in the management unit, including the manner and method of take and use and regulation of vehicles in gaining access to recreational locations within the management unit, in consultation with the Secretary and affected public. The Secretary shall permit access to the management unit by airboat for the purpose of fishing, hunting, and frogging, as well as for other recreation. Access locations and regulations for the purpose of fishing, hunting, and frogging will be at the discretion of the State, in consultation with the Secretary and affected public. Research and habitat management activities will be conducted by the Secretary in conjunction with the State.

--NATIONAL RECREATION AREA. Management of the East Everglades as a National Recreation Area would be similar in nature to management as a National Preserve. In either case, recreation and access must be regulated in a scientifically-based manner to protect and enhance wildlife and the Everglades ecosystem. We recommend including the legislative language adopted from the West Virginia Act listed above, to protect the role of the state in managing fish and wildlife. Designating the area as a recreation area clearly would recognize the longstanding traditional public use of the area and continue that use where appropriate.

We support legislative action directing the Department of Interior to assist the State of Florida in land acquisition efforts. Florida currently has acquired approximately 40% of the East Everglades for the purpose of wetlands protection, FLORIDA hydrological restoration, fish and wildlife management and properly regulated public recreational opportunities including: fishing, frogging, hunting, nature observations and other forms of outdoor recreation. We believe that a management program for the area can be developed which fully protects the natural resources and which includes regulated public use of the area. We believe that Federal 1987 West Virginia Rivers Legislation recognizing the role of the state fish and wildlife agency in wildlife management and hunting and fishing management provides a good model in federal legislative language regarding the East Everglades. This area can provide a critical buffer zone for the Everglades National Park. We believe that the state wildlife management agency can play a vital role in assisting the Department of Interior with habitat management, wildlife surveys, research and law enforcement. The area is currently managed by the Florida Game and Freshwater Fish Commission, as the East Everglades Wildlife Management Area. The management of the area should be ecosystem-based with special consideration given to species such as the endangered wood stork, other wading birds, Everglades kite and species such as Cape Sable sparrow which have suffered tremendous habitat loss.

A 1988 study of wading bird reproductive ecology in the Florida Everglades by Dr. Peter Frederick and Dr. Michael Collop of the University of Florida, indicated the habitat degradation, loss of the major areas of feeding habitat, and disruption of normal hydropatterns have probably been the most important cause of reduction in the wading bird populations. The researchers could find no evidence that current declines could be attributed to loss of rookery habitat or rookery harassment. We believe that management of this area and other Everglades wetlands must have hydropattern-regimes favoring increased feeding habitat for wading birds if we are to increase their numbers.

We have recently learned that there may be amendments added to this legislation regarding modifications of the water deliver schedule to the Everglades National Park to benefit Shark River Slough. We are in favor of efforts to approach the Everglades historical hydropatterns as closely as possible within this highly man modified ecosystem. However, we must insist that those amendments do not adversely affect the ability of the lower portion of conservation area 3 to provide a drought year water refugia for wading birds and the federally endangered Everglades

Kite. The lower portion of Conservation Area 3's ability to retain water when other parts of the Everglades are dry, makes it an absolutely critical habitat for the Kite which has been eliminated from most of the Everglades. Some will argue that this area is unnatural and hence of little importance. The truth is that in the historic Everglades, dry year water refugia were extremely important for wildlife populations and we must not eliminate these areas because in a critical drought year or in a series of drought years we literally could drive the Everglades Kite to extinction. The lower portion Conservation Area 3 is critical habitat for 90 percent of the remaining Everglade Kites during dry years. We strongly support direct input from the U.S. Fish and Wildlife Service and the Florida Game and Freshwater Fish Commission which is in charge of Conservation Area 3's wildlife management into the development of any amendments to this legislation regarding water regime management.

In addressing Everglades restoration it is fundamentally important to realize that we are dealing with a highly manipulated ecosystem which has been subjected to massive, destructive alterations by human engineering. To repair, recreate, and maintain as much as possible of the Everglades ecosystem and its plant and animal life, to provide for human recreational needs and desires, and to meet other human objectives which society and the political systems demand such as drinking water, groundwater recharge, flood protection for urban areas, preventing destruction of South Florida's remaining wetlands, and controlling exotic vegetation requires active natural resource management. It is absolutely critical that management decisions regarding water delivery scheduling in the Everglades region involves the active participation and concurrence of the U.S. Fish and Wildlife Service and the Florida Game and Freshwater Fish Commission. The participation of these agencies in the decision making process is needed in addition to that of the National Park Service, the Army Corps of Engineers and the South Florida Water Management District. The U.S. Fish and Wildlife Service and the Florida Game and Freshwater Fish Commission have management responsibilities which include the entire Everglades ecosystem not just within the Park boundaries.

The determination of which area gets what amount of water when and for how long is the greatest challenge to those seeking to perpetuate the Everglades and its biota. Agricultural and urban pollution of surface and groundwater also poses a tremendous threat to the Everglades ecosystem. Our members have worked hard to protect both federal and state owned portions of the Everglades from seemingly perpetual threats. We support current federal litigation aimed at forcing sugar growers and other farmers in the Everglades agricultural area to retain and clean up their agricultural wastewaters prior to discharging into publicly owned waters and wetlands. We are active proponents of saving the Everglades. In the 1970's and early 1980's Florida Wildlife Federation Director Arthur R. Marshall, for whom the Loxahatchee National Wildlife Refuge was renamed, brought the Kissimmee-Okeechobee Everglades restoration plan, first known as the Everglades Marshall Plan, forward. We have been among the strongest advocates for the Everglades and agree with much of the proposed legislation intent. We do believe that it is possible and desirable to protect and manage the East Everglades as a National Wildlife Refuge, or as a National Recreation Area, or National Preserve with state control over fishing, frogging, and hunting. We also do not believe that there is any necessity to eliminate managed fishing, frogging, or hunting from the area now known as, East Everglades Wildlife Management Area. We support as part of an overall wildlife management plan for the area that public access to the wading bird colony sites be eliminated during the nesting season as a conservative measure even though recent investigations by University of Florida researchers did not indicate human disturbance of nest sites was a significant problem.

We believe that multiple public use subject to professional regulation including consumptive use is not in conflict with long term ecological restoration goals of the East Everglades. State and federal agencies have practiced this type of management in many locations. In Florida, the Game and Freshwater Fish Commission manages the Guano Wildlife Management Area for wading birds as well as providing hunting. The Three Lakes Wildlife Management Area also managed by the Florida Game and Freshwater Fish Commission in the Kissimmee region has recently been selected by the Whooping Crane Recovery Team as the site for establishment of an eastern Whooping Crane population. This area is used for regulated multiple recreation including hunting. The U.S. Fish and Wildlife Service conducts this sort of management in conjunction with states across the country.

We believe that there are viable options beyond the National Park concept which protect the area and allow for current recreational activities to continue. We urge the Congress to consider amending the legislation to incorporate the alternatives that we have presented for the federal acquisition and management of the East Everglades.

Thank you Mr. Chairman and Committee Members.

FLORIDA GAME AND FRESH WATER FISH COMMISSION

C. TOM RAINEY, D.V.M., Chairman, Miami
MRS. GILBERT W. HUMPHREY, Vice-Chairman, Miccosukee
THOMAS L. HIRES, SR., Lake Wales
WILLIAM G. BOSTICK, JR., Winter Haven
DON WRIGHT, Orlando

ROBERT M. BRANTLY, Executive Director
ALLAN L. EGBERT, Ph.D., Assistant Executive Director

EVERGLADES REGION
551 North Military Trail
West Palm Beach, Florida 33415
(305) 683-0748
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June 7, 1989

Mr. Tom McVicar
South Florida Water Management District
P. O. Box 24680
West Palm Beach, Florida 33416-4680

Dear Mr. McVicar:

This letter is in regard to your request regarding wildlife resources and public utilization of the East Everglades Wildlife and Environmental Area (EEWEA).

As you know EEWEA has been managed for public utilization by this Agency since 1985 as per an agreement with the South Florida Water Management District. There are two separate management units as depicted in the attached map. The Southern Unit is presently closed to hunting, fishing and trapping due to an incomplete boundry description.

Most of the hunting activity that occurs in the Northern Unit is for deer and occurs on the weekends during the regular hunting season. Usually that begins in early September and ends the first week in January. Last year Wildlife Officers checked an average of fifteen persons per day in the area on most weekends. The Management Area is closed to motorized vehicles which, combined with rugged terrain, makes hunting rather difficult. In spite of these restrictions a regular group of hunters utilize the area.

Adjacent lands receive much heavier public use. Private property south of US Highway 41 and north of EEWEA is higher quality wildlife habitat and is more accessible to the general public. For example, the Dade County Airboat Club has 485 members which use this area extensively for hunting, fishing, frogging and camping. Twenty to thirty hunting parties is not unusual to be in this area in an average weekend during the general hunting season.

Attached to this letter is a memo from GFC Lt. Don Holway regarding his analysis of public use on the EEWEA last year. Also attached is information on wildlife resource utilization of the region.

In conclusion, my overall evaluation of the proposed Everglades National Park expansion is that the region is extremely important in terms of wildlife resources and public utilization. The property should be purchased, conserved, and managed for multiple public benefits. Land available for public hunting and fishing in South Florda is dwindling rapidly and these management activities should be considered as essential tools in the wildlife management program for the East Everglades Region. Allowing these activities, along with the management of endangered and threatened species, would in no way jeopardize water delivery plans to Everglades National Park.

Sincerely,

R. Daniel Dunford

Lt. Col. R. Daniel Dunford
Regional Director

RDD:ebc

WLD 8-5-2

cc: Dr. Allan Egbert
Mr. Robert Ellis

FLORIDA GAME AND FRESH WATER FISH COMMISSION

THOMAS L. HIRES, SR. Chairman, Lake Wales
MRS. GILBERT W. HUMPHREY Vice-Chairman, Micanopy
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MAY 25 1989

MEMORANDUM

MAY 22, 1989

TO: Maj. J. A. Ries

FROM: Lt. Don Holway

REFERENCE: E-3 usage during 1988

E-3 usage for the year of 1988 was minimal when compared to other management areas in Dade county, however there is a regular group of users who hunt in the area. Most of the hunting activity is for deer, and occurs on weekends. On an average weekend officers checked 10 to 15 hunters per day. Since this area is closed to motorized vehicles and the terrain is so rugged, it makes hunting very difficult. Even with these restrictions the area is still utilized regularly. Many of these users do not have buggies or airboats, and they are grateful to have a place that they can walk hunt.

Other types of users found in the area include fishermen. There are several small canals and borrow pits along SW 237 ave. which are used frequently for fishing. During closed season we have checked numerous users riding bicycles on the context rd. portion of the area. Most of these users are birdwatching and picnicing. These users are happy to find a place where they can get away from the South Florida crowds, and noise.

Adjacent areas, which are not part of E-3 but are slated for aquisition by the park, receive quite a bit of hunting pressure. This includes quail, rabbit, and dove. As development has moved west in Dade county these users have been pushed further west. During dove season this area usually has about 100 users\day on the weekends.

Senator **Bumpers**. Thank you very much. Incidentally, before I forget, Senator McClure wanted to be here but he has just finished four days of hearings on Puerto Rico and could not make it. He and Senator Wallop will submit questions for the record to the National Park Service and the Corps of Engineers, and, depending on the complexity of the answers, they may submit additional questions.

Mr. Balman, you obviously have a very strong and emotional attachment for the area and, when it comes to hunting, what all do you hunt for there, besides deer, for example?

Mr. **Balman**. Ducks, snipe, not the snipes you catch in a bag. The old joke, you know, that these are birds——

Senator **Bumpers**. Once when I was about 10 years old, I held——

Mr. **Balman**. They fly very erratic and they are a lot of fun to hunt. The, a lot of people——

Senator **Bumpers**. Are snipes edible?

Mr. **Balman**. Oh, yes, sir. Oh, yes, sir. Excellent eating. I have one doctor who loves me to bring them to him all the time. And frog legs are very good, too, and a lot of other things are very good to eat. But it is all regulated. We have been policing ourselves in the area for years.

In this area here, it shows you airboat trails that run all the way through the park and through the East Everglades and all the way over into the Big Cypress preserve, all the way into the Ten Thousand Islands that you can, it is a, the ride you were just, earlier you stated you went on an airboat ride.

I have helped build a lot of the airboats that are used on some of the rides and there is some individual airboat rides, you know, commercial operations like you said, are just tourist traps. And they just zip you out there and zip you back and never tell you nothing about the area, never show you what a piece of sawgrass will do to you if you put your fingers the other way, it will cut you to the bone. They do not explain the topography of the area, the wildlife, you know, the Dry Islands they call hammocks and stuff like that.

Most of the wildlife, sir, if you do not see them in the daytime, the animals in the area are a lot smarter than we are, being we do not have much of a winter season; they do not come out much in the daytime, but they are out at night. And the animals actually benefit from the airboat trails, Mr. Bumpers. I have videos and all when the water starts dropping in the area, most of the ironhead storks, North American stork, the curloo, the roseate spoonbills, they actually come over into the East Everglades where you have the sawgrass, which is, when it is not touched and left to be in a natural position and the fire is put out, it grows to ten to twelve foot tall.

So what wading bird, what deer or anything else can walk through a wall of ten-foot sawgrass? You cannot. You cannot do it. It mashes the grass down and the animals can go from one area into the other very easily. You can sit up here in Washington and talk about it all day, but you do not know it until you have been in it.

The largest Everglades kite population in the Everglades region is at the Micasuki airboat rides, and Mr. Bob Kelly of the Tropical Audubon Society can verify that, that we took him out there on the airboats and from one line to another and he saw an Everglades kite swoop down behind an airboat, which only eats snails, and pick up some apple snail and fly back up into a tree and he finally got to see what we have been telling him, that it mashes down the grass and all so that the kite can actually see a snail and then get it without having to try and find it in a ten-foot wall of sawgrass.

It is so unique and we love it so much down there that I just, I get very upset with these people who want to keep you out because all they ever do is walk on a boardwalk. They have not spent the night out there and watched the sun come up in the morning and see the golden glow of the dew on the sawgrass from all the spiderwebs in there.

Senator BUMPERS. Are you an airboat operator, Mr. Balman?

Mr. BALMAN. Yes, sir.

Senator BUMPERS. How many airboats do you have?

Mr. BALMAN. Right now I have three.

Senator BUMPERS. Where do you operate?

Mr. BALMAN. Anywhere I can.

Senator BUMPERS. Do you have some place where people stop and employ you, do you not?

Mr. BALMAN. No, sir.

Senator BUMPERS. Just at home? Do you have a——

Mr. BALMAN. Sir, I do not take out, I take out people who ask me. I do not charge money; I am not a commercial airboat operator. I am not getting paid for being here.

Senator BUMPERS. Oh, you do not, you are not a commercial operator.

Mr. BALMAN. No, sir. And most of the members of the Airboat Association and the Everglades Coordinating Council love the Everglades. Our members helped lay out the boundary lines of Everglades National Park in 1947. We were told then that we would not be kicked out from the use of airboats in the area. Well, as you know, airboats are not allowed in the national park.

It is, we have gotten letters in the past of all these dikes and levees they have built, where we wrote letters to the Army Corps begging them not to dig these dikes, dams and levees and they went ahead and done it anyhow, and I have got the letters on file back in our club house in the files. And now they want to fill them in where they made the mistake.

It is ironic the way they do things, but we told them then and begged them not to do it, but they done it anyhow. Like I say, before the dikes, dams and levees, you could put an airboat in in town, approximately Kendall Drive and Crome Avenue and run all the way to the west coast.

There is one airboat trail that was recently taken away from us, I can show it to you in here. The country actually changes from, when you leave the loop road at Pinecrest, it changes from cypress trees to hard mahogany hammocks, where, in South Florida, you can actually see the leaves change colors, but usually it does not happen in South Florida because there is no winter system. And then it changes again to pine islands, palmettos, and then it goes back to a little bit of sawgrass and then mangrove swamps. And then you get back into Gator Bay and all, I can show you the maps of it here; it is truly amazing.

And I just cannot figure, I have never had anyone out on an airboat and showed them the area that has not changed their whole attitude on the area. I have pulled an airboat right into the middle of a rookery at night and the birds just move a few feet away from the airboat and just sit there and look at you, with millions, well, I would say, thousands of curloos and roseate spoonbills right in this——

The reason you can pull into the hammock is because the curloos and the wading birds, when they roost at night, sir, they are a lot smarter than we are, they roost normally over an alligator hole, because if the other critters come in to get the birds, before them critters can climb up the trees, they have to pass this gauntlet of alligators, so they are pretty intelligent.

Usually the alligators got the grass mashed down where you can ease right in the gator hole and then turn your lights off and the birds will just fan, you can feel the wind coming off of them, there are so many and they are truly amazing. And, just recently, I helped retrieve a downed helicopter from the North Carolina forestry crew. I have signed letters from them, too, that they were not in favor of it going to park, because they could not get in there with their equipment. They require everyone to walk in an area.

In Everglades National Park, for example, the topography, if I might continue, the average depth of the soil before you get to cap rock in Everglades National Park is one foot. In the East Everglades, it is four foot before you get to cap rock, so you have to have something that will stay up on top of the mud or the grass mat.

And in Everglades National Park during the dry season, when there are fires, you have a dry crust of this marl and muck on top, and it would not harm anything except mash down a little grass, and if the fire get out of hand, like in hammock fires, which will burn the muck and destroy a whole tree island.

Now, that is when the fires are actually damaging the Everglades. When they do burn the tree islands, then the tree islands will disappear; then there will be no dry ground during the wet years.

Senator **Bumpers**. Mr. Humble, how many acres are there in the Frog Pond?

Mr. **Humble**. There are basically—I am sorry—there are basically two areas of agriculture in the East Everglades. Just one brief look into the past there. In 1981, Dade County, through its first ordinance in the East Everglades, set aside a little over 30,000 acres for agriculture over there. That is a conservative figure, I think. In the area you just asked about, there is 5,245 acres.

Senator **Bumpers**. How many?

Mr. **Humble**. 5,245. In the area north of there, however, which is farmed, there is probably an additional amount of land equal to that. I do not know the exact acreage on that; we will supply that to you. That is the total parcel, 5,245.

Senator **Bumpers**. How many farmers are in there?

Mr. Humble. That body of land is owned by a corporation of which there were six shareholders. Five of the shareholders are tomato farmers and I am the other shareholder. Those farm families, by the way, go back, they are third, second-generation farmers in that area. Some go back into the 1920's. Not specifically on that site, however, but those farmers had farmed inside the park.

Senator Bumpers. Are you a farmer yourself?

Mr. Humble. I own farmland, yes.

Senator Bumpers. You are not——

Mr. Humble. I own groves, yes.

Senator Bumpers. But you are not active in the farming business?

Mr. Humble. I should not say that. I have farm investments in grove and in ag land. It would mischaracterize me to say that I actually farm.

Senator Bumpers. Mr. Humble, are you, you are just apprehensive about what increased water flow in the Shark River Slough will have, is that right?

Mr. Humble. I think I am apprehensive about it because, originally, of course, that was not taken into the park, the 100,000 acres. I am apprehensive about 100,000 acres going into the park with water deliveries being part of it because we are concerned that, with increased water deliveries, meaning height of water that will occur, that there will be an impact on farmland. There is an impact on farmland.

Senator Bumpers. Are you afraid the canal is going to flood your land?

Mr. Humble. No. In south, in Dade County, the water table itself comes up; you can envision it almost as a bathtub, and as more water is put into it, it rises. It is an elevation of groundwater. The canals merely serve as delivery systems for water or for the removal of water, and obviously there is a balance required there to keep the groundwater at such a level as to not damage farming.

Senator Bumpers. Have you had any difficulty with this canal in the past?

Mr. Humble. Personally I have, east of the levee, within the protected zone, not in the East Everglades, I have had damage from flooding, of course. Now, west of the levee, you will have damage from flooding in rainfall events, high rainfall events. But you can also add to the water table by delivering water into this area, and that is our concern as well. You can elevate the water table through delivery of waters.

Now, as Brad Palmer points out in his written testimony, the average rainfall in Dade County is about 57 inches. He was with USGS for 17 years in Dade County. The amount of water being delivered to Dade County is 57 inches on top of the annual rainfall now. We have got twice the amount of water coming into this community, but the system that was designed for this area can accommodate those different levels of water.

It is overloaded with water from the private landowner's standpoint, and that is one of the problems. And you are trying to address it through your general design memorandums in other areas. There is an absolute overloading of the system and everyone agrees with that.

Senator BUMPERS. Is that entire Frog Pond area next to the canal, has that, is all of that used for agriculture?

Mr. HUMBLE. Okay, we are going to submit photographs taken by USGS in 1940 that shows the earliest farming in there. When the farmers left the in-holding in the park and they went to the outside of the park, they started to develop that area more extensively. And about, probably around 3,200 acres was pretty much developed.

When we purchased that land a year and a half ago, we then developed the rest of the land that was undeveloped, because those farmers, of course, did not want to put that level of money into that. They did because they needed the farmland and they leased it. But after they purchased it, of course, they had an incentive to go ahead and develop the rest of the land, which they did. It is completed now; we completed it in the last couple of weeks, all the development.

Senator BUMPERS. Mrs. Hoog, how much of the eight and a half square mile area is ever flooded? Has it been flooded in recent years?

Ms. HOOG. Yes, sir. We are in the middle of a test situation using the pumps at the levee to control the groundwater level. To refer to Mr. Humble's statement, the groundwater is our problem. So the pumps at that levee work very well for the people that are right up against the levee in the eight and a half square mile area. But as you move away from it west, those areas are impacted more.

So we have higher groundwater than normal, and one inch of rainfall in our area raises the groundwater six inches. So you can see that it is very easy for us to flood with these higher groundwater levels.

Senator BUMPERS. When it floods, does it flood the entire area or just the border along, the area along the slough?

Ms. HOOG. Well, it depends on the antecedent conditions as to the impacts of the flooding. It would depend on how much water was there, how much water is being moved through the area, and what water levels are being held in levee 31, which is east of our area. It is a very alive situation as far as the water goes.

Senator BUMPERS. Mrs. Hoog, I want the bill to protect you and the other people that you are here representing. Sometimes, you know, nature takes over and then the politicians get blamed for something that, you know, God in his infinite wisdom, perhaps, could not have kept from happening.

Ms. HOOG. We have had those events, too, out there.

Senator BUMPERS. So I want to make sure that we protect you as best we can. I used to practice law, and I used to have people come in my office and quite often they needed a doctor or a preacher or an engineer, but they did not need a lawyer.

And so, often times, people would come in and they blamed government for everything untoward, whether God did it or somebody else did it, they always blamed government. And all we can do, of course, is take into consideration your genuine and legitimate concerns about this and do the very best we can to address it.

But I suspect, based on what you have told me and not knowing the area as well as I would like to, that it would be impossible for us to guarantee, for example, that you are not ever going to suffer any flooding in there.

Ms. HOOG. Well, if I may say, sir, Florida, in and of itself, by the nature of the area, we are, we all know that you could live on the highest portion of land in Coral Cables, and, with a good hurricane, you can flood. So I mean, that is part of the way we all live down there.

Our problem is actions that have changed, moving water around to help the park, and looking at the flood-protected areas east of us; we are just kind of caught in the middle of water changes. And, of course, we do not expect flood protection to be 100 percent because I do not think it could ever be designed to be that way.

Senator BUMPERS. When the Arkansas River was made navigable—and this is not related, really, to this bill, but just to give you an illustration of what I am talking about when I am taking your view of it—I represented quite a few landowners whose lands were being condemned for this flood control project and also navigation and so on.

So the Arkansas River was ultimately harnessed and has quite a bit of navigation on it now, but those landowners did not want to give up their land that was being condemned. And the government was very crafty. Instead of condemning the land outright and just taking title to it, they would take an easement. And I always hated those easement cases.

Ms. HOOG. The old flow easement.

Senator BUMPERS. I would rather they just take the whole thing than to take an easement. And they would have these hydrologists, the Corps of Engineers would bring these hydrologists in to testify that this land would only flood once in every 50 years.

Well, you and I both know, you know, nobody can predict with any degree of certainty, I mean—and I remember one tract of 120 acres where this farmer probably should have had at least $500 an acre in damages; he got $127 because the jury believed this business about it would only flood once every 50 years. That has been about 25 years ago and it has flooded 10 years of the 25.

And, you know, the government ought to, somebody ought to be able to go back into court, take that testimony that the jury relied on and try that case all over again, because the guy obviously did not get what it was worth; people thought, "Well, if he can get 49 crops out of 50, he is not hurt very much." But it just did not turn out that way.

So that is really sort of in the back of my mind why I am saying what I am to you. On the other side of it, we cannot promise you, and I want to be truthful with you on the front end.

Ms. HOOG. Well, Senator, the flood protection, as I say, living in South Florida, we all have to put up with tropical storms and hurricanes. But the problems that have come up in our area have been, the whole area was down-zoned by ordinance and we have had these changes in water delivery.

And our area has just been in limbo out there; we have what could be a wonderful little community and we are kind of being held in limbo until these things come to pass around us. And our position has been that flood protection or purchase has been our position, but we do not feel that, we do not really want to move.

But if there would be no other way, of course, purchase would do it.

But we have just been in limbo now for nine years, waiting for something to happen so that we can get our flood protection, will change our zoning from one house per 40 acres back to residential, sparsely populated residential community.

Senator BUMPERS. You were down-zoned by whom?

Ms. HOOG. By the county, by the local government.

Senator BUMPERS. Is the county government under which you live, is that the closest government to you?

Ms. HOOG. Yes, sir. Dade County.

Senator BUMPERS. You do not have a municipal government there.

Ms. HOOG. No.

Senator BUMPERS. You are just a part of Dade County.

Ms. HOOG. Yes, sir. Metropolitan Dade County.

Senator BUMPERS. Well, Ms. Hoog, gentlemen, I thank you very much for being with us. This is all very helpful to us.

The committee will now stand adjourned.

[Whereupon, at 11:12 a.m., the hearing was adjourned.

APPENDIXES

APPENDIX I

RESPONSES TO ADDITIONAL QUESTIONS

United States Department of the Interior
OFFICE OF THE SECRETARY
WASHINGTON, D.C. 20240

SEP 20 1989

Honorable Dale Bumpers
Chairman, Subcommittee on Public
  Lands, National Parks and Forests
Committee on Energy and Natural Resources
United States Senate
Washington, D.C. 20510

Dear Mr. Chairman:

Enclosed are our answers to the questions on S. 721, the bill to modify the boundaries of Everglades National Park, which accompanied your letter of June 26. Please accept our apologies for this late response.

Sincerely,

James F. Spagnole
Legislative Counsel

Enclosures

QUESTIONS SUBMITTED BY SENATOR DALE BUMPERS

1. **QUESTION:** What effect will restoration of water flows into the Northeast Shark River Slough have on nearby residential and agricultural areas?

ANSWER: The results of hydrologic studies conducted by the South Florida Water Management District indicate that the flood risk in the residential and agricultural areas of the East Everglades did not increase with the implementation of the current experimental delivery program. This is a result of the lowered stages in the adjacent canal system. Prior to any additional flow restoration improvements, a levee system would need to be constructed around the 8.5 square mile area, as described in the General Design Memorandum for Shark Slough currently being developed by the U.S. Army Corps of Engineers.

Studies by the Army Corps of Engineers indicate that the agricultural areas would not be affected by the Shark Slough restoration project.

2. **QUESTION:** The purpose of canal L-31W, which runs along the eastern border of the park and next to the Frog Pond agricultural area, has been at issue. What is the Park Service's view of the purpose or purposes of this canal?

ANSWER: The L-31W canal is an integral park of the canal system which is designed to control water levels in South Dade County. It is used to meet minimum delivery requirements to the park via Taylor Slough, but is also is used to help meet urban and agricultural needs. The initial concept for South Dade County plan contained in the Comprehensive Plan and authorized by the 1948 Flood Control Act, (PL 80-858) called for the area to be protected by Levee 31 (L-31). Later analysis led to a revision of the project. The Survey Review Report on South Dade County as presented in Senate Document No. 138 (dated September 1961), and authorized by the Flood Control Act of 1962 (PL 87-874), recommended a plan that would convey all the runoff, east of L-31 and north of Homestead, to the east via six eastward canals.

In response to the desires of Everglades National Park (ENP), the local sponsor (South Florida Water Management District), the U.S. Fish and Wildlife Service, and land developers, the South Dade County Plan was modified using the discretionary authority of the Chief of Engineers. The major changes were Canal 111 (C-111) would collect runoff from a series of southward canals and convey the runoff to Barnes Sound, and L-31 was realigned around the Frog Pond area to the eastern boundary of ENP. Levee 31W was designed to prevent flooding from ENP into agricultural and industrial areas lying to the east. The L-31W Borrow Canal was designed to convey flow to ENP when normal runoff was available within the drainage area. This plan was presented in the General Design Memorandum, South Dade County (Part V, Supplement 37), approved by the Chief of Engineers in November 1963. The Frog Pond was intended to drain to C-111.

The uses of L-31W Borrow Canal were recognized in Senate Document No. 20 authorized by the Flood Control Act of 1965 (PL 89-298). Page 18 of the report states, "Levee 31N is an authorized levee along the eastern edge of the Southwest Dade area which will protect urban and agricultural developments in the South Dade area from being flooded when water is ponded overland west of the levee. The borrow canal for L-31W and Canal 111 are integral parts of the canal system designed to control water levels in South Dade County and to permit the normal runoff from this area to be released to the South or into Everglades National Park."

The ENP-South Dade Conveyance Canal System was presented in H.D. 369 and authorized by the Flood Control Act of 1968 (PL 90-483). The Conveyance System was authorized for the purpose of improving the supply and distribution of water supplies to ENP, and the expanding agricultural and urban needs. The original east alignment of the conveyance system considered was found to be not as economical as the west alignment at that time thus the west alignment was recommended in House Document 369. Page 68 of House Document 369 states, "These canals would improve distribution of water to the park, particularly low flow conditions...the continuation of Levee 67 Extension Canal and auxiliary pumping station, to the junction with the authorized South Dade Canal System would convey water to Taylor Slough, the eastern and South Dade County." In the General Design Memorandum - Conveyance Canals to Everglades National Park and South Dade County (Part V, Supplement 52) approved by the Chief of Engineers in November 1973, the east alignment was modified. Re-analysis revealed it was less costly than the west alignment and the east alignment was recommended. As a part of the Conveyance System, modifications were made upstream of L-31W (including improvements to the L-31N Borrow Canal upstream of its confluence with Canal 103) to enable adequate delivery of water to Taylor Slough via L-31W and the ENP eastern panhandle via C-111. Pump station 332 in L-31W was provided and is operated to provide the minimum monthly water delivery requirements to Taylor Slough mandated by PL 91-282.

PL 91-282 specifies that 315,000 acre-feet of water be delivered to the park annually, except during drought years when the park would receive 16.5 percent of total project deliveries. The minimum delivery schedule of Taylor Slough is 37,000 acre-feet per year.

3. **QUESTION**: How much of the 90 percent decline in the park's wading bird population is due to changes in the water flow patterns into the park? To what extent will the inclusion of the East Everglades area within the park restore the wading bird population?

ANSWER: The sharp decline in the number of wading birds nesting in Everglades National Park is almost entirely due to the combined impacts of two substantial alterations in the Everglades ecosystem: (1) irreversible losses of wetland feeding habitats, especially along the eastern flank of the Everglades where relatively short-hydroperiod marshes have been converted into agricultural and residential zones; and (2) massive changes in flow patterns and water-distribution patterns in the remaining Everglades, due to water management practices. The relative contribution that these two factors have made towards the collapse of the Everglades National Park wading bird population (nesting) is not easily determined, although it is the latter factor that almost certainly has had the greatest adverse impact on the park's wading bird colonies. Redistribution of water flow patterns, drying patterns, and the location of the residual pools during late dry seasons, caused by water management practices, have substantially altered the timing and distribution of food resources for wading birds in the Everglades, so that optimum feeding habitat no longer occurs at the proper season and locations relative to colony locations in most years.

Acquisition of the Eastern Everglades, along with new water delivery schedules that will restore more natural water flow and distribution patterns in both the current park and the add-on area, will allow for the reestablishment of a much larger area of wetlands with potentially much improved value as feeding habitat for nesting wading birds. The amount of recovery by wading birds that might occur from restoration of the East Everglades cannot be predicted in any strong quantitative way, although an eventual nesting population two to three times larger than the current population would not be unrealistic to expect.

4. **QUESTION**: What percent of the Central and Southern Florida project was paid for by the Army Corp of Engineers?

ANSWER: Less than 50 percent was paid for by the Corps of Engineers. The estimated Federal capital cost has been $840 million; the estimated state and local cost has been $481 million.

5. **QUESTION**: What has to be done now to assure restoration of the natural water flow into the park?

ANSWER: The restoration of flow to the Shark Slough Basin requires distribution of water deliveries across the entire width of the Basin, and allowing flow volumes and timing to vary with rainfall. This has been the overall approach of the current Rain Driven delivery test. Acquisition of the proposed park expansion area and completion of the structural improvements in the Shark Slough General Design Memorandum will provide the flexibility to define an optimum water delivery system for the basin. Restoration of flows to the Taylor Slough and C-111 basins will require much additional research since these basins were not included in the experimental delivery program. Structural improvements needed in these basins are currently being addressed by another General Design Memorandum developed by the Army Corps of Engineers. A similar period of experimental water deliveries and accompanying research may be needed to develop optimum delivery systems for these basins.

6. **QUESTION**: Is the work specified in question 5 in the nature of mitigating the problems caused by earlier construction of the Central and Southern Florida Project?

ANSWER: The work outlined above should not be viewed as mitigation for problems caused by construction of the of the Central and South Florida Project. Natural flows to the Everglades National Park were altered drastically before construction of the C & S F Project, by State and private drainage projects. The C & S F Project also altered flows to the park, but some of these modifications were beneficial. The proposed efforts should be viewed as a modification of the Congressionally authorized project to better restore natural ecosystem functions to wetland systems altered by the construction of the Central and South Florida Project and previous State and private drainage projects. These projects have shortened natural wetland hydroperiods altering the vegetation and wildlife character of these basins.

7. **QUESTION**: Who should pay for the cost of mitigating these problems?

ANSWER: Since the Department of the Interior is committed to the President's goal of no net loss of America's wetlands, we plan to acquire, with the assistance of the State of Florida, the lands to be protected. This cost is expected to be sizable. We are concerned that the Department may also have to pay for the associated structural work in addition to its outlays for land acquisition in the area. Nonetheless, we would not object to paying for this work as long as the cost of the project work does not affect or interfere with other Interior priorities.

8. **QUESTION**: At the hearing, the Park Service's written testimony stated that the State of Florida should contribute more towards acquisition costs than the 20 percent specified in the legislation. What percent does the Department believe the State should contribute?

ANSWER: We strongly urge that the State contribute at least 50 percent of the total land acquisition cost of the land not presently in public ownership and provide for the donation of all the land that is presently in public ownership.

9. **QUESTION**: What is the estimated value of the approximately 43,000 acres being contributed to the park by the State?

ANSWER: The value of the approximately 43,000 acres being contributed by the State is estimated at $22.2 million based on:

12,160 acres purchased by SFWMD in 1983	$2,472,114
5,132 acres purchased by State from Senior Corps in 1984	$4,850,000
17,280 acres purchased in 1983/84 by State	$10,574,560
34,572 acres	$17,896,674
8,350 acres (approximately--Dade County/School Board):	$4,250,000

10. **QUESTION**: The Park Service's written testimony stated that the restoration of the water flows into the Shark River Slough requires a two-fold solution, acquisition of land and modification of water control structures. The Park Service has estimated the federal land acquisition costs at $32 million. What are the estimated costs of the water control structure modifications?

ANSWER: The National Park Service defers to the Corps of Engineers with respect to the specific detailed costs of the Shark Slough structural modifications. The approximate cost is $40 - $50 million with about one-half of this cost covering the East Everglades Levee System. The remaining $20 million would cover the control structures needed to restore flow distributions into the Northeast Shark Slough basin.

QUESTIONS SUBMITTED BY SENATOR JAMES A. McCLURE

1. **QUESTION:** Everglades National Park officials have stated that the sole purpose of the L-31W Canal is to deliver water into the Park. What is the basis for this determination? Please explain in detail and provide the Committee with supporting documentation.

ANSWER: The L-31W Canal is an integral part of the canal system which is designed to control water levels in South Dade County. It is used to meet minimum delivery requirements to the park via Taylor Slough, but is also is used to help meet urban and agricultural needs. The initial concept for South Dade County plan contained in the Comprehensive Plan and authorized by the 1948 Flood Control Act, (PL 80-858) called for the area to be protected by Levee 31 (L-31). Later analysis led to a revision of the project. The Survey Review Report on South Dade County as presented in Senate Document No. 138 (dated September 1961) and authorized by the Flood Control Act of 1962 (PL 87-874), recommended a plan that would convey all the runoff, east of L-31 and north of Homestead, to the east via six eastward canals.

In response to the desires of Everglades National Park (ENP), the local sponsor (South Florida Water Management District), the U.S. Fish and Wildlife Service, and land developers, the South Dade County Plan was modified using the discretionary authority of the Chief of Engineers. The major changes were Canal 111 (C-111) would collect runoff from a series of southward canals and convey the runoff to Barnes Sound, and L-31 was realigned around the Frog Pond area to the eastern boundary of ENP. Levee 31W was designed to prevent flooding from ENPS into agricultural and industrial areas lying to the east. The L-31W Borrow Canal was designed to convey flow to ENP when normal runoff was available within the drainage area. This plan was presented in the General Design Memorandum, South Dade County (Part V, Supplement 37), approved by the Chief of Engineers in November 1963. The Frog Pond was intended to drain to C-111.

The uses of L-31W Borrow Canal were recognized in Senate Document No. 20 authorized by the Flood Control Act of 1965 (PL 89-298). Page 18 of the report states, "Levee 31N is an authorized levee along the eastern edge of the Southwest Dade area which will protect urban and agricultural developments in the South Dade area from being flooded when water is ponded overland west of the levee. The Borrow Canal for L-31W and Canal 111 are integral parts of the canal system designed to control water levels in South Dade County and to permit the normal runoff from this area to be released to the South or into Everglades National Park."

The ENP-South Dade Conveyance Canal System was presented in H.D. 369 and authorized by the Flood Control Act of 1968 (PL 90-483). The Conveyance System was authorized for the purpose of improving the supply and distribution of water supplies to ENP, and the expanding agricultural and urban needs. The original east alignment of the conveyance system considered was found to be not as economical as the west alignment at that time thus the west alignment was recommended in House Document 369. Page 68 of House Document 369 states, "These canals would improve distribution of water to the park, particularly low flow conditions...the continuation of Levee 67 Extension Canal and auxiliary pumping station, to the junction with the authorized South Dade Canal System would convey water to Taylor Slough, the eastern and South Dade County." In the General Design Memorandum - Conveyance Canals to Everglades National Park and South Dade County (Part V, Supplement 52) approved by the Chief of Engineers in November 1973, the east alignment was modified. Re-analysis revealed it was less costly than the west alignment and the east alignment was recommended. As a part of the Conveyance System, modifications were made upstream of L-31W (including improvements to the L-31N Borrow Canal upstream of its confluence with Canal 103) to enable adequate delivery of water of Taylor Slough via L-31W and the ENP eastern panhandle via C-111. Pump station 332 in L-31W was provided and is operated to provide the minimum monthly water delivery requirements to Taylor Slough mandated by PL 91-282.

PL 91-282 specifies that 315,000 acre-feet of water be delivered to the park annually, except during drought years when the park would receive 16.5 percent of total project deliveries. The minimum delivery schedule of Taylor Slough is 37,000 acre-feet per year.

2. **QUESTION**: How much agricultural land currently in production is proposed for acquisition under this legislation?

ANSWER: Two active citrus groves totalling approximately 100.4 acres (Parcels A and C), and farm field of approximately 54.4 acres (Parcel B), are proposed for acquisition. These three sites are included within the boundary because they fall west of the recognizable and logical boundary recommended by the East Everglades Land Acquisition Task Force Report, dated October 1, 1988. In addition, there is potential to develop them for public access to this new addition. Development of these areas will mean other undeveloped land proposed for acquisition will not need to be dredged and filled, but may remain in it's natural state.

In addition, a field of 13.8 acres (Parcel D), and a second of 143.5 acres (Parcel E), are proposed for acquisition. Both fields were planted with ground crops after the hearings on H.R. 1727 on May 16, 1989. Two groves, each of approximately 68 acres (Parcels F and G), and both located well west of the proposed new boundary, are proposed for acquisition, as they would be a barrier to the proposed natural water flow.

The agricultural lands within the Everglades expansion area are summarized below, and please refer to the map, Attachment E.

A -	Citrus Grove	Mid-Age Trees	86 Acres
B -	Old Farm Field	Ground Crops	54.4 Acres
C -	Citrus Grove	Young Trees	15.4 Acres
D -	Old Farm Field	New Ground Crops	13.8 Acres
E -	Old Farm Field	New Ground Crops	143.5 Acres
F -	Glider Port Grove	Mango Established	68.9 Acres
G -	Grove North of Chekika		68.9 Acres

3. QUESTION: One of the stated purposes of this legislation is to restore "natural hydrologic conditions in the Everglades by permitting increased flows rough both the Northeast Shark River Slough and the Taylor Slough area. Will Congress need to consider further legislation in the future and will federal and state agencies need to implement other changes or legislation to fulfill the promise of restoring the Everglades to a more natural condition? Please specify what additional actions will need to be taken.

ANSWER: In addition to the land acquisition authorized by S-724, Federal legislation is needed to authorize and fund certain structural and operational changes in the existing water delivery system. For the Shark Slough Basin, structural modifications are needed to fully implement the current program of experimental water deliveries. These modifications include new control structures to move water between the upstream water storage areas to mitigate flood damages caused by increased releases into East Everglades. All of these needed modifications are addressed in the General Design Memorandum for the Shark Slough Basin currently being developed by the U.S. Army Corps of Engineers.

The initial costs required to restore the Everglades and expand the park included in the Modified Water Deliveries General Design Memorandum should be funded by the Department of the Interior. This would eliminate the need for the project to compete for new appropriations in two separate programs, thereby avoiding the conflicting priorities and possible delays inherent in multiple appropriation reviews. If included in the Interior program the project would need to compete only once with similar projects.

4. QUESTION: It is assumed that the Frog Pond area and the "8.5 square mile area" will receive some flooding if the park is allowed to restore the natural water flow. What will be the extent of this flooding? What modifications and/or measures will be required in order to ensure that the agricultural lands of the Frog Pond and the 800 residents of the "8.5 square mile area" are protected?

ANSWER: For the 8.5 square mile residential area, the U.S. Army Corps of Engineers is studying a levee system as part of the General Design Memorandum for Shark Slough. This system should provide more than the authorized level of flood protection, thus preventing nearly all general flooding within the proposed levee system.

The Frog Pond agricultural area is not hydrologically linked to the Northeast Shark Slough Basin and will not be affected by the flow restoration projects to Northeast Shark River Slough. The Frog Pond agricultural area is linked hydrologically to Taylor Slough, however the Frog Pond is surrounded by conveyance canals which control its water level inside. The flood protection improvements in the General Design Memorandums for Shark Slough and the C-111 Basin will significantly increase the conveyance capacity in the adjacent C-111 Canal, and reduce flows into the area from the upstream basin.

5. QUESTION: In addition to the two areas just discussed, there are additional agricultural lands adjacent to the proposed park boundary. Will these lands require protection from flooding? What modifications/measures will be required to provide such protection?

ANSWER: The additional agricultural areas not included within the protective levee system lie to the south of the 8.5 square mile residential area. Hydrological investigations of the Corps of Engineers indicate that this area will not be affected by the Shark Slough Restoration Project. This area does include extensive wetlands that are currently seasonally inundated. All of the agricultural lands to the west of the L-31N canal and south of the proposed levee are subject to wet season flooding regardless of the fate of the current Shark Slough delivery experiments because of the low-lying nature of the area. The L-31N canal lowers groundwater westward to some extent, but no flood protection beyond the design operational criteria of L-31N is provided to these lands under existing law. This will remain unchanged under the park expansion project. For this reason, the Park Service notes that agricultural practices in the existing fields should be limited to seasonal rowcrops to limit agricultural losses due to flooding from storm events.

6. **QUESTION:** Please provide your best estimated cost that would be required to protect these lands from any adverse impacts they might receive from the increased water flow to the park. Specifically, Frog Pond, the "8.5 square mile area" and other agricultural units.

ANSWER: Planned improvements in water delivery to Everglades National Park focus primarily around the timing and distribution of water delivered. The volume of water delivered will be keyed to rainfall and may not necessarily increase significantly over the past minimum delivery scheduled amounts. However, water deliveries will be distributed more widely, and surface flows through Northeast Shark River Slough, the area proposed for addition to the park, will increase over those recently occurring within that area.

To insure that the proposed distribution of water into the Northeast Shark River Slough does not cause flooding of developed lands within the "8.5 square mile residential area", the U.S. Army Corps of Engineers is studying a levee around this developed area. The Corps of Engineers has estimated the cost of this flood protection to be approximately $20 million (See Section VII of the East Everglades Land Acquisition Task Force Report).

We further recommend that S.724 be amended to require appropriate Federal/non-Federal cost sharing of both land acquisition and project construction costs. The bill as introduced would apportion 80 percent of the cost of acquiring private lands to the Federal Government and only 20 percent to the State. The Everglades are extremely important to both the economy and the quality of life of South Florida, benefitting tourism, commercial fishing, and recharging the Biscayne aquifer that provides drinking water. The Administration therefore believes it would be equitable, and appropriate in a time of severe Federal fiscal constraints, for the State or other non-Federal entities to assume at least 50 percent of private land acquisition costs and 50 percent of costs of constructing project works needed to restore water flows to ENP.

It is the opinion of the U.S. Army Corps of Engineers, the south Florida Water Management District, and the National Park Service, that the proposed improved water deliveries to Everglades National Park will not cause any increased flooding potential to the Frog Pond or other agricultural units and therefore, no cost is involved with these units.

Please refer to Attachment E, letter dated May 22, 1989, from the South Florida Water Management District to the Honorable Bruce Vento, Chairman, House Subcommittee on National Parks and Public Lands, which states in paragraph three: "The Frog Pond will not be harmed at all by the restoration of Shark River Slough which is being proposed by the Corps' design process."

Please refer also to Attachment F, letter dated June 13, 1989, from the Army Corps of Engineers Project Management Office to the Honorable Bruce Vento, which states in paragraph two, "There would be no adverse hydrologic affect on the Frog Pond agricultural area as a result of plans being considered."

Those agricultural lands south of the 8.5 square mile area that will lie adjacent to the new expanded park boundary are afforded an estimated 1-in-10 year flood protection by the operational design criteria of the immediately adjacent L-31N drainage canal. There is no proposed change in the original design criteria of this canal associated with the park project and therefore, no increase in potential adverse impacts. A transition zone is proposed to be established within the new park boundary, based on scientific evaluation, to allow for hydrologic impacts from operation of the Central and Southern Florida Project and the Proposed Dade County West Wellfield. The Frog Pond is located within the Taylor Slough drainage and separated by canals so it is hydrologically isolated from the Shark Slough drainage except through the South Florida Flood Control project canals. The operational design criteria of these canals will remain unchanged, so there is no increased flooding potential to the Frog Pond associated with the park expansion project.

7. **QUESTION**: Would these expenditures be absorbed by the Department of the Interior or by the Army Corps of Engineers?

ANSWER: Since the Department of the Interior is committed to the President's goal of no net loss of America's wetlands, we plan to acquire, with the assistance of the State of Florida, the lands to be protected. This cost is expected to be sizable. We are concerned that the Department may also have to pay for the associated structural work in addition to its outlays for land acquisiton in the area. Nonetheless, we would not object to paying for this work as long as the cost of the project work does not affect or interfere with other Interior priorities.

8. **QUESTION**: How much money would it cost to acquire the Frog Pond area, the "8.5 square mile area", and other adjacent lands that would be adversely impacted by the increased water flows to the park?

ANSWER: The only private land that might be adversely impacted by the park project are those lying within the park expansion zone and residential and agricultural lands within the "8.5 square mile" area.

The park project, as currently proposed, involves providing flood protection to the "8.5 square mile" developed area, in lieu of purchase at an estimated cost for flood protection of $20 million. To federally acquire these lands instead of providing them flood protection would cost over $88 million. It could add to the park an estimated 232 homes, 166 outbuildings, and a few small lime, avocado, and mango groves. The Corps' estimates for acquisition costs are preliminary and subject to change. The costs provided below are based on acquisition of 6,700 acres. The Corps has assumed that there are 2,000 separate property owners in the "8.5 square mile area":

Total land @ $7,500/acre	$50,250,000
600 acres of groves	9,400,000
232 residences @ $65,000 ea.	15,000,000
166 outbuildings @ $7,000 ea.	1,200,000
Relocation cost	400,000
Federal administrative cost @ $1,000/tract	2,000,000
Non-Federal administrative cost @ $5,000/tract	10,000,000
Total Acquisition Cost	$88,250,000

9. **QUESTION**: During the last few years you had an agreement to draw down the L-31W Canal which you have terminated due to the adverse impacts to the park. Please describe the adverse impacts.

ANSWER: The results of the park's studies of the 4 years of the drawdowns indicate that management of wet season canal stages below the authorized optimum level of 4.5 feet causes drainage of the Taylor Slough wetlands adjacent to the west of the L-31W Canal. These drainage impacts extended west of the canal to a distance of as much as two miles. Historically, the upper Taylor Slough marshes, as described by Frank Craighead, Sr. (1971), included expansive areas of highly productive, long-hydroperiod wetlands. With the subsequent lowering of water levels in this region, due to the cumulative impacts of drainage and agricultural activities to the east, annual hydroperiods have been shortened to the point that much of the biological productivity in the region has been significantly reduced or altered. Shorter hydroperiods have allowed for invasion of an array of woody plants into the former marsh community, including several conspicuous species of exotic trees and shrubs. Shorter hydroperiods and the corresponding increase in frequency of fires, have also adversely altered the character and depth of soils, and the species composition and biological productivity of the algal mats (periphyton). The changes in the vegetative community, and reduction in primary productivity in the periphyton, caused by shortened hydroperiods have been documented by several studies, including T. Alexander and A. Crook (1974), J. Browder and others (1981, 1982) and I. Olmsted and others (1980).

Shortened hydroperiods also reduce the numbers of freshwater fishes and aquatic invertebrates, and the numbers of alligators, that can survive in this type of altered wetland system. Current studies by W. Loftus and M. Fleming are finding that shortened hydroperiods can, on average, cause a 70 to 80 percent reduction in the numbers of fishes, invertebrates, and alligators. Clearly, any action that reduces the area of flooding or the length of time each year that the upper Taylor Slough wetlands hold surface water, does adversely alter the biological integrity of the region.

It should be noted that in 1981 the South Florida Water Management Board rejected requests for early season L-31W draw down of water. The Park Service signed an agreement for a one year early draw down in 1984 solely to document adverse effects to the park. That agreement stipulated that the draw down was, "not to be construed as having any precedential or binding effect whatsoever on the farmers or Everglades National Park in other future years of operations." On May 16, 1987, and again on June 16, 1988, two water management boards appointed by two different Governors determined the early season draw down was improper.

The following reports, copies of which have been provided to the subcommittee staff, are pertinent to this question:

> Alexander, T.R., and A.G. Crook. 1974. recent vegetational changes in South Florida. Pages 61-72 in P.J. Gleason, ed., Environments of South Florida: present and past. Miami Geol. Soc. Memoir 2.
>
> Johnson, Robert A., Joel I. Wagner, Deborah J. Brigsley, and Virginia Stern. 1988. Hydrologic Effects of the 1984 through 1986 L-31 Canal Drawdowns on the Northern Taylor Slough Basin of Everglades National Park. South Florida Research Center.
>
> Wagner, Joel I., Robert A. Johnson, Deborah Grigsby. 1985. Effects of the 1984 'Frog Pond' Drawdown upon Northern Taylor Slough Water Resources. South Florida Research Center.
>
> Loftus, W.F., J.D. Chapman, and R. Conrow. In press. 1986. Hydroperiod effects on Everglades marsh food webs, with relation to marsh restoration efforts. Proc. Fourth Triennial Conference on National Parks and Equivalent Reserves, Ft. Collins, CO.

10. **QUESTION**: Increasing water flows through the Everglades will mean that a larger area of park land will be covered by highly-polluted, nutrient-rich water. How will this action interface with the purposes of this legislation? Will delivering more of this polluted water to the park result in additional degradation to the resources?

ANSWER: We assume that the water quality problems the Everglades are currently subjected to will be corrected. Enforcement of present state water quality standards will remedy the problem. This is the focus of the ongoing lawsuit, U.S. versus South Florida Water Management District and Florida Department of Environmental Regulation. The State of Florida also has legislated an ongoing Surface Water Improvement and Management (SWIM) planning process that will help solve the pollution problems. Without such measures to clean up the water, degradation will continue regardless of the size of the park.

If pollution is not controlled near its source, the structural modifications under consideration will be of some benefit because they will force nutrient-rich water through the marshes of Water Conservation Area 3B, north of the park expansion area. This will serve to purify this water before it reaches the park. Also, water that is presently delivered to Shark River Slough through the western flow section will spread more uniformly throughout the expansion area, providing for a wider dispersion of undesirable contaminants. This will in effect lessen the pollution problems in the present park, and prolong the realization of nutrient-induced biological changes to the park resources.

11. **QUESTION**: Please provide an estimate of the administrative costs which will be required to purchase the 65,000 acres that are under private ownership.

ANSWER: The Big Cypress Lands Acquisition Office in Naples already has the basic infrastructure to proceed with the land acquisition. Administrative costs are estimated to be $3.5 million for a five-year acquisition period, based on the following:

Additional staff (10) salaries and fringe benefits, establish a Miami satellite office location, increased postage, office equipment	$1,786,000
Title insurance and closing costs	$1,245,000
Appraisals	$415,000

Excluding the 8.5 square mile area, there are approximately 8,300 individual tract ownerships.

12. **QUESTION**: What data or studies is the Park Service relying upon to determine what the "natural hydrologic conditions" are?

ANSWER: Studies of water deliveries to the Shark Slough basin during the 1940's and 1950's have been used to determine the "natural" distribution and timing of flows prior to the completion of the Central and Southern Florida Project. Optimum flow volumes are being determined through the interim water delivery test program. Hydrologic studies during the delivery tests are defining the spatial and temporal variability of the park's water conditions in response to current water deliveries. Concurrent biological studies are defining the wildlife responses to these water deliveries. The combination of contemporary hydrologic data, and biologic studies and studies of pre-project water deliveries will define the best possible water deliveries to enhance and restore the natural ecosystem functions in these areas of the park.

13. **QUESTION**: Is there a difference between "natural" hydrologic conditions and "historic" hydrologic conditions? If so, please explain.

ANSWER: Historic hydrologic conditions relate to those conditions that occurred prior to the arrival of man in the Everglades. Unfortunately, no quantitative data exists to define the hydrologic conditions in the southern

Everglades prior to the 1930's. Natural hydrologic conditions relate to conditions that will allow natural biological processes to continue in a naturally occurring manner unaffected by water management activities.

14. **QUESTION**: Has the U.S. Geologic Survey ever been asked to independently assess the hydrology of the Everglades area and to determine what the historic flows into the Everglades were? Would you support such an effort by the U.S.G.S.?

ANSWER: The U.S. Geological Survey, as well as the National Park Service, U.S. Corps of Engineers, and the Central and Southern Florida Flood Control District, have all completed reports on the early hydrologic conditions in the park. The reports, copies of which have been provided to the Subcommittee staff, are listed below:

Central and Southern Florida Flood Control District. 1950. A report on water resources of Everglades National Park, Florida.

Dunn, A. V. 1958. Water Resources, Everglades National Park. A memorandum to the Assistant Director of the Park Service from the Chief of the Water Resources Section.

Dunn, A. V. 1961. Required minimum discharges to Everglades National Park from Central and Southern Florida Flood Control District, National Park Service, Water Resources Section.

Hartwell, J. H., H. Klein, and B. F. Joyner. 1963. Preliminary evaluation of hydrologic situation in Everglades National Park, Florida, U. S. Geological Survey.

Johnson, L. 1958. A survey of water resources of Everglades National Park, Florida. (NPS contract).

Joseph, S. C., and G. Sprugel. 1964b. Interim Water Needs, Everglades National Park, Summary of an interagency meeting at the Jacksonville District of the U.S. Army Corps of Engineers.

National Park Service. 1964a. Water Problem, Everglades National Park, Department of the Interior Position Paper.

South Florida Research Center. 1967. Ecological basis for determining Everglades National Park water needs. Internal correspondence. Everglades National park.

U.S. Army Corps of Engineers. 1960. Analysis of water supply for Everglades National Park, General Design Memorandum, Conservation Area No. 3, Central and Southern Florida Project, Part I, Supplement 33.

Wagner, J. I., and P. Rosendahl. 1988. History and development of water delivery schedules for Everglades National Park through 1982. Draft Technical Report, South Florida Research Center.

The National Park Service would encourage any efforts by the U.S.G.S. or any other agency to assist in defining the historic or natural hydrologic conditions in the Everglades and what modifications can be made to improve the current conditions in the park.

15. QUESTION: Experimental water deliveries to the park were originally authorized in Section 1302 of the Supplemental Appropriation Act of 1984 for a two-year period and were subsequently extended for a two-year period in the Water Resources Development Act of 1988. Has the park service ever produced a final report on the effects of the experimental water delivery program on the park? If not, why not? If so, would you please forward the information to the Committee? If no report has been made, please provide a detailed analysis of the results of these experimental deliveries.

ANSWER: Four final or draft reports have been completed on the results of the experimental water delivery period. Copies have been provided to the subcommittee staff. The reports are:

MacVicar, T. 1985. A wet season field test of experimental water deliveries to Northeast Shark River Slough. SFWMD. Tech. Publication 85-3.

MacVicar, T., and T. VanLent. 1984. Evaluation report--a 30-day field experiment of water deliveries to Northeast Shark River Slough (April-May 1984). SFWMD. Tech. Memorandum.

Sikkema, D. A., R. A. Johnson, and K. Portier. 1987. An analysis of hydrologic conditions pertaining to water deliveries to the Shark River Slough.

Everglades National Park. October 1970-May 1985. NPS Draft Technical Report.

Neidrauer, C. J., and R. M. Cooper. 1988. A 2 year field test of the rainfall plan. SFWMD Draft Technical Report.

There have been four iterative water delivery tests conducted during the experimental delivery program. The four tests and a brief description of the test results are listed below:

ITERATIVE DELIVERY TESTS
(Authorized by Public Law 98-181)

Flow Through Plan (June 1983 - May 1985): Initially proposed as one element of the 7-Point Plan. Allowed a free flow system of water through WCA-3A into the park with the S-12's open full throughout the test period.

The test produced sustained high flows to ENP (mean Shark Slough discharge of 819,800 acre-feet/year for 1983-1985 compared to a mean Shark Slough discharge of 457,800 acre-feet for 1971-1982).

The general effect of maintaining the S-12 gates open continuously was the reduction of pulse discharges that occurred under the Minimum Monthly Delivery Schedule period through the release of sustained higher discharges.

There was a large surplus of water in the conservation areas at the start of the plan so the experiment did not significantly impact water storage in WCA-3A until the dry season of 1985, when rainfall was well below normal and the pool in the southern portion of Water Conservation Area 3A was eliminated.

Dry Season 30-Day Test (April - May 1984): Allowed dry season water releases into Northeast Shark Slough via S-333 through an agreement between SFWMD and South Dade farmers.

This test showed that dry season releases into Northeast Shark Slough could be made under very stringent operating criteria that would not have a significant impact on the developed areas of the East Everglades.

Wet Season 90-Day Test (August - November 1984): Allowed wet season releases into Northeast Shark Slough via S-333 through a similar agreement between SFWMD and South Dade farmers.
This test showed that wet season releases could be made under slightly less stringent operating criteria without impacting the developed areas of the East Everglades. The test had two extended periods of interruption due to stages exceeding established thresholds.

These two short iterative tests set the stage for a longer test period of S-333 releases into Northeast Shark Slough.

Rainfall Driven Plan (June 1985 - present): Water deliveries to Shark Slough via the S-12's and S-333 are based on the sum of two weekly components: a rainfall response component and a WCA-3A regulatory component. Target flow distributions were established so that 55 percent of the flow went into Northeast Shark Slough (through S-333) and the remaining 45% went into Western Shark Slough (through the S-12's).

The test was able to more nearly reproduce natural surface water patterns in Shark Slough. This was accomplished by distributing flow across the entire slough and allowing the volume and timing of flows to fluctuate with rainfall.

Discharges into Northeast Shark Slough (NESS) were significantly limited due to the constraints placed on the test by the agreement between the South Florida Water Management District and the South Dade farmers. Closing of the eastern flow structure (S-333) was not necessary because conditions in the East Everglades did not respond to NESS discharges.

The flood risk to the residential and agricultural areas in the East Everglades was not increased as a result of the test. The evidence provided by the SFWMD suggests that the flood risk was lower during the test than prior to the test because of the lowered water levels maintained in the adjacent L-31N canal system.

The regulatory component of the discharge was at times more than twice the rain-driven component which made an evaluation of the rainfall formula more difficult. The concurrent biological studies conducted in the park during the rain-driven plan suggest that much of this additional regulatory flow was needed to maintain optimum hydrologic conditions in the park.

16. **QUESTION**: My understanding is that until 1987, the Corps of Engineers and the South Florida Water Management District provided for drawdown in the L-31W canal to accommodate the winter growing season in the Frog Pond agricultural lands. Has the Park Service documented that these drawdowns resulted in an unnatural hydrologic regimen for the park, and therefore, resulted in the degradation of the park? If so, please provide this documentation.

ANSWER: Prior to 1983, for 13 years, the structures in the L-31W canal were operated according to the authorized operating criteria in the Operation and Maintenance Manual, Central and Southern Florida Project 1970. In June 1984, Everglades National Park and the individuals and corporations farming in the "Frog Pond" agricultural area reached an agreement outlining a one-year only experimental drawdown of the L-31W and C-111 canals for the 1984-85 growing season. The purpose of the experiment was to determine the hydrologic effects on the Park of lowering canal stages in the Frog Pond area which had been requested by the farmers to permit earlier planting, and an early harvest, of seasonal row crops. Following the initial experiment, the canal drawdown operations were extended through the 1985-86, 1986-87, and 1987-88 growing seasons through an agreement between the farmers and the South Florida Water Management District. The National Park Service was not a party to the agreement and objected to the inclusion of the canal drawdowns in this agreement for Northeast Shark Slough experimental deliveries.

The results of the L-31W canal drawdown study indicated that the October 15th drawdowns produced water level reductions throughout the northern Taylor Slough basin. The average date of water level recessions to the 3.50-foot drawdown level in the L-31W canal was reached 5 weeks earlier when compared to the previous 14 years of record. Table 4 below summarizes the observed water level declines in the L-31W canal and at wetland stations adjacent to the canal, relative to an estimated background recession rate.

Table 4. Summary of Observed Water Level Declines during the 1984 through 1986 Drawdown Periods.

1984 DRAWDOWN PERIOD

START OF PERIOD	END OF PERIOD	S-175 STAGE	NTS1 STAGE	NTS3 STAGE	NTS5 STAGE	R3110 STAGE	BACK. REC.
0800 10/15	0800 10/16	0.58	0.42	0.25	----	0.06	0.06

1985 DRAWDOWN PERIOD

START OF PERIOD	END OF PERIOD	S-175 STAGE	NTS1 STAGE	NTS3 STAGE	NTS5 STAGE	R3110 STAGE	BACK. REC.
0000 10/11	2400 10/15	0.82	0.71	0.55	0.45	----	0.30
0800 10/20	0800 10/23	0.60	0.66	0.62	0.42	0.18	0.18

1986 DRAWDOWN PERIOD

START OF PERIOD	END OF PERIOD	S-175 STAGE	NTS1 STAGE	NTS3 STAGE	NTS5 STAGE	R3110 STAGE	BACK. REC.
0800 10/16	2400 10/17	0.55	0.39	0.28	0.11	0.16	0.10

All water level declines are in feet. Back. Rec. represents the background recession calculated for the period based on a water level recession rate of 0.06 feet per day. Wetland stations NTS1, NTS3, NTS5, and R3110 are located at 1000, 3300, 6800, and 12,000 feet west of the canal, respectively. S-175 is the structure that controls water levels in the L-31W canal adjacent to the Frog Pond.

During the drawdown period, the L-31W canal acted as a groundwater sink draining the adjacent wetlands in the Park. This is inconsistent with the initial design purpose of the L-31W canal which states that the canal should replenish the fresh water supply to the Taylor Slough basin. The lowering of L-31W canal stages to allow earlier land preparation and planting in the Frog Pond agricultural area is incompatible with the system's design intent of restoring fresh water flows to the Taylor Slough basin. A full explanation of the hydrologic impacts of the 1984 through 1986 L-31W canal drawdown is explained in the technical report provided.

17. QUESTION: According to park officials, the number of wading birds nesting in the park has declined 93 percent since the 1930's, from 265,000 birds to 18,500. Please provide the Committee with a summary of how these statistics were obtained. Please include a summary of any relevant documentation which may exist.

ANSWER: Estimates of the number of wading birds nesting in the region now within the boundaries of Everglades National Park have come from two primary sources. For the years 1930-1946, the detailed field reports of the wardens and sanctuary staff of the National Audubon Society, who regularly patrolled the southern Everglades during that period, have provided the best numbers for wading birds prior to the establishment of the park. Since 1947, when Everglades National Park was established, the staff of biologists working in the park has collected annual estimates or counts of wading birds in colonies for most years. The colony censuses have been especially systematic and accurate since the mid-1960's. All counts and estimates of wading birds in park colonies have been tabulated, and are available at the South Florida Research Center, Everglades National Park. The table below estimates the changes that have occurred for the key species. While estimates are only estimates, we do know there has been a marked decline in nesting wading birds, as shown below:

SPECIES	1930's	1960's	1980's
Great Egret	15,000	8,000	4,000
Small Herons	40,000	20,000	5,000
White Ibis	200,000	50,000	8,000
Wood Stork	8,000	6,000	500
TOTALS	263,000	84,000	18,500

18. **QUESTION**: The comment was made that the Wood Stork numbers in the park have decreased. Please explain population trends for each decade beginning in the 1950's. Please explain Wood Stork population trends for each decade beginning in the 1950's for areas outside of the park boundaries.

ANSWER: Peak numbers of Wood Storks nesting in colonies in Everglades National Park, by decade between the 1950's and 1970's, have been as follows: 1950's = 6,000 nesting storks; 1960's = 5,000 storks; 1970's = 2,500. Since 1980, the numbers have been as follows:

1980 = 100
1981 = 980
1982 = 760
1983 = 30
1984 = 1300
1985 = 850
1986 = 750
1987 = 300
1988 = 440
1989 = 500

The decline in storks nesting in the park since the 1950's has exceeded 80 percent.

Outside of the park, storks also nest throughout the Florida peninsula, and in a few small colonies in Georgia and coastal South Carolina. Region-wide censuses of all known stork colonies were conducted between 1958 and 1960, and again in all years between 1976 and 1986. For all colonies outside of Everglades National Park, the total number of nesting storks has been as follows:

1960 --14,650
1976 --7,990
1980 --9,450
1986 --11,000

Regionally, the number of nesting storks apparently was declining between the late 1950's and mid-1970's. More recently (and in sharp contrast to the pattern in Everglades National Park), numbers have shown some modest recovery.

19. **QUESTION**: Glacier Bay National Park is currently encountering problems with its permit system for tour boats. Specifically, those individuals who were "grandfathered" into the permit system have sold the permits to the other tour lines. Please explain how you are going to avoid this problem if this legislation "grandfathers" airboat operators into newly-acquired areas of the Park.

ANSWER: Section 103(c)(2) specifies that private "owners of record of registered airboats in use within the addition as of January 1, 1989, shall be issued nontransferable (emphasis added) nonrenewable permits, for their individual lifetimes, to operate personally-owned airboats for noncommercial use (emphasis added)", in accordance with conditions prescribed by the Secretary of the Interior. No provision of the legislation would allow the selling of private owner permits to commercial operators.

Section 103(d) specifies that owners of legitimate commercial airboat and tour facilities in existence on or before January 1, 1989, would be afforded the opportunity to negotiate and enter into a concession contract with the National Park Service. No provision of the legislation would allow any owner of commercial airboat or tour facility to be considered for a contract unless they were in business on or before January 1, 1989. Should a concession contract (different than a private use permit) be negotiated with a valid business owner the transaction would be subject to the review and approval procedures by the National Park Service for all concessions contracts as provided in the Concessions Policy Act of 1965 and the National Park Service Concessions Management Guidelines. Theoretically, the permits cannot be sold, only the business can be sold. The permit is transferred from one entity to another. We see no way to avoid the perception of the permit being sold. To otherwise restrict the permit transfer would be to limit the sale of the business to tangible assets only and not recognize the location, clientele and other factors considered in business sales.

QUESTIONS SUBMITTED BY SENATOR BILL BRADLEY

1. **QUESTION:** I note that your testimony urges "swift enactment" of the bill if it is amended as described later in your testimony. Specifically, your testimony calls on Congress to address the "water management" portion through "appropriate authorizations." You stress the Administration's support is contingent upon such actions. What are appropriate authorizations?

ANSWER: Since the Department of the Interior is committed to the President's goal of no net loss of America's wetlands, we plan to acquire, with the assistance of the State of Florida, the lands to be protected. This cost is expected to be sizable. We are concerned that the Department may also have to pay for the associated structural work in addition to its outlays for land acquisition in the area. Nonetheless, we would not object to paying for this work as long as the cost of the project work does not affect or interfere with other Interior priorities.

2. **QUESTION:** Although you note that "there are important issues regarding the quality of water entering the park," your testimony provides us with no further comments. How does the Administration propose to prevent additional water quality degradation in the park? Is the Administration willing or able to mitigate the inflow of agricultural runoff into the park? Are there existing federal authorities which could lead to the protection of surface water quality in the park? Does the Administration fully support a lawsuit that has been filed by the U.S. Attorney for Miami, Florida, against the State of Florida, which alleges that the State has failed to enforce its own mandated water quality standards?

ANSWER: Current and future degradation of the quality of water delivered to the park is currently being addressed through the ongoing lawsuit, U.S.versus South Florida Water Management District and Florida Department of Environmental Regulation. The approach of the Administration is to require the above agencies to enforce present water quality standards.

The National Park Service has no authority over the flow of water in the upstream areas above the park. For that reason, we are unable to mitigate the inflow of agricultural runoff.

The only existing Federal authority that could administratively protect the surface water quality of deliveries to the park would be the U.S. Environmental Protection Agency (EPA) through the Clean Water Act. In 1988, the National Park Service requested that the water of Everglades National Park be designated by the State as Outstanding National Resource Waters. That request was granted in June 1989, but State legislation will be necessary to conform existing laws to the designation.

The Administration fully supports the current lawsuit filed by the U.S. Attorney for Southern District of Florida on behalf of Everglades National Park and the Loxahatchee National Wildlife Refuge.

3. **QUESTION**: You are representing the Administration today. I would like to know a bit more of the Army Corps of Engineers' involvement in this region. Can you provide, for the record, a brief history of the Army Corps' projects in Southern Florida which have had an impact on water quality in the Everglades? How much federal, state and local money (in 1989 dollars) has been spent on these projects to date? Have these projects allowed the expansion of local agriculture and, if so, how much?

ANSWER: In 1881, the State of Florida sold a million acres to Hamilton Disston in return for him entering into a contract for draining and reclaiming all of the Everglades lands belonging to the State of Florida. Disston's company cut a canal from Lake Okeechobee to the Caloosahatchee River and dug canals to connect many of the Kissimmee Basin Lakes until his death in 1896, upon which those activities ceased. In 1905, the State of Florida established the Everglades Drainage District. The Everglades Drainage District was given taxing authority and was directed to drain and reclaim swamp and overflowed lands within the State. Between 1906 and 1931, the Everglades Drainage District dug a series of canals from Lake Okeechobee to the Atlantic Ocean to drain part of the area and relieve the coastal areas of excess water.

In 1926 and 1928, hurricanes struck the Lake Okeechobee region killing a total of between 2,000 to 3,000 people. In response to these disasters, the Corps of Engineers submitted a plan for Lake Okeechobee to Congress (Senate Document No. 115) which was approved by Congress in the Rivers and Harbors Act of 1930 (PL 71-320). The principal features were improvements of the Caloosahatchee River and St Lucia Canal, and construction of a flood protection levee and navigation channel along the south of Lake Okeechobee.

Extreme dry spells in 1931 and other years through 1945, resulted in lowered ground-water levels, and the serious threat of saltwater intrusion into the sources of municipal water supply for coastal cities. The peat soils of the Everglades dried out and shrunk and much of the area burned. Then, in 1947, hurricane winds and rains flooded three million acres of land in Central and Southern Florida for periods of many months.

It was the sense of public hearings held by the Corps of Engineers that the uncoordinated efforts of many agencies in the past had failed to solve the many problems, and the problem was too large and complex for the State and local agencies to handle. The feeling was one comprehensive plan was needed to cover all phases of the water problems and which included the entire area.

The Corps of Engineers prepared a comprehensive report in 1948, which was published as House Document No. 643. House Document No. 643 and the Central and Southern Florida Project was authorized by the Flood Control Act of 1948 (PL 80-858). The plan called for construction of a comprehensive water management system superimposed over the existing drainage system. The project purposes include flood control, municipal, industrial, and agricultural water supply, prevention of saltwater intrusion; preservation of fish and wildlife, water supply to Everglades National Park, navigation, and recreation.

In House Document No. 643, the Chief of Engineers stated, "Development of the comprehensive plan of improvement would afford a high degree of flood protection throughout the area; it would provide for removal of excess waters in the wet season, and for their control, storage, and use in maintaining water levels during dry periods. In addition to these primary purposes, the improvements would reduce the dry season intrusion of salt water into lands and water supplies of coastal areas. Its features would produce substantial benefits from the preservation of fish and wildlife resources." The importance of this project to Everglades National Park was clearly stated by the Chief of Engineers in House Document No. 643, when he stated, "The plan of improvement has also been developed in full recognition of the importance of Everglades National Park which has been established recently at the Southwestern tip of the Florida Peninsula. Release of water from conservation storage will assist in restoring and maintaining natural conditions within the national park area, by reducing damage from drought and fire which have threatened the preservation of lands, vegetation and wildlife." The Assistant Secretary of the Interior stated, "as concerns the National Park Service, the question in not one of too much water, but a guarantee that there shall not be too little."

In 1968, the Corps of Engineers prepared a report on water resources for Central and Southern Florida, published as House Document No. 369, and authorized by the Flood Control Act of 1968. In this report, the Corps of Engineers stated, "Preservation of the Everglades is a project purpose and that available water should be provided on an equitable basis with other users...water quality if a vital function in proper water-resource management and will be incorporated in operational procedures as may be dictated by results of continuing investigations in this area in cooperation with affected State and Federal agencies." The Deputy Director of Department of the Interior once again emphasized the Park's need for water that surplus flood waters be delivered to the Park, rather than discharged to the ocean. The 1968 Flood Control Act authorized a number of measures to improve Everglades National Park.

a. ENP - South Dade Conveyance System to convey water from Water Conservation Area No. 3A the Park in Tay Slough and the Eastern Panhandle.

b. Improvement of Miami and North New River Canal to convey water from Lake Okeechobee to ENP - South Dade Conveyance System, and provide for excess flood water from the lake to be discharged into the Water Conservation

Areas and then into the park.

c. Concept that first priority of releasing floodwaters from Lake Okeechobee is south into water conservation areas rather than through the St. Lucie Canal and Caloosahatchee River.

d. Structure in Buttonwood Canal near Flamingo to prevent hyper-saline water from Florida Bay from entering the fresh to brackish waters of Whitewater Bay and Coot Bays within the park.

These features are now complete and operational.

In 1970, Congress passed PL 91-282 which guaranteed a minimum delivery of 315,000, acre-feet of water per year to Everglades National Park from the Central and Southern Florida Project. During drought years, the park would receive 16.5 percent of total project deliveries. The schedule is 260,000 acre-feet at Shark River Slough, 37,000 acre-feet at Taylor Slough, and 18.000 acre-feet at the Eastern Panhandle. Senate Report No. 91-895 that accompanied PL 91-282 directed the Corps of Engineers and National Park Service reach agreement on assuring good quality water is delivered to the park.

PL 98-181 (November 1983) authorized a program of experimental water deliveries to the park. The Corps of Engineers is currently testing new schemes of improved water deliveries to the park, and in addition, preparing a General Design Memorandum for Modified Water Deliveries to Everglades National Park. The plan being considered is vital to the long term health and viability of Everglades National Park.

The Central and Southern Florida Project is located within the southwestern 16 counties of Florida covering area of about 18,000 square miles. Major physical features within the project area include the Kissimmee Basin, Upper St. Johns Basins, Lake Okeechobee, the Everglades Agricultural Area, three water conservation areas, the Lower East Coast, and Everglades National Park. The project includes abcut 900 miles of levees, 1,000 miles of canals, 30 pump stations, and over 200 water control structures. Lake Okeechobee, surrounded by Herbert Hoover Dike, functions as a multipurpose reservoir that is the liquid heart of South Florida.

The estimated cost for new work (October 1988 price levels), is $872 million, Federal, and $216,255,000 contributed funds, exclusive of river and harbor funds expended on previous projects. The estimated cost to local interests of lands, rights-of-ways, and relocations is $308,748,000. The total project cost is, therefore, approximately $1.4 billion.

The Central and Southern Florida Project has made possible much of the agricultural development present in Central and Southern Florida. Sugarcane and winter vegetables are grown in the 600,000 acre Everglades Agricultural Area south of Lake Okeechobee. There are a variety of ranching and dairy operations located north of Lake Okeechobee and in the Kissimmee River Basin. There is much citrus grown in Martin and St. Lucie Counties in the Canal 23, 24, and 25, and St. Lucie Canal areas. South Dade County produces many winter vegetables, limes and avocados, and Cuban crops. It was determined that in the case of the Central and Southern Florida, the cost allocated to increase land use was comparable to the cost allocated to irrigation in western projects. The local sponsor has been required to contribute 20 percent of the construction cost of project works.

The Central and Southern Florida Project has provided basic flood control and water supply needs of the area, while preserving much of the historic Everglades. The drainage activities prior to the Project reduced the volume of flow to the area now encompassed by Everglades National Park. The Central and Southern Florida Project reversed those trends, and has increased the volume of water available to Everglades National Park. It is likely that without the Project, much of the Everglades preserved in the water conservation areas would have been drained.

South Florida Water
Management District
REFERENCE CENTER

TRAL AND SOUTHERN
LORIDA PROJECT

LOOD CONTROL AND OTHER PURPOSES

PART V

LIBRARY

STAL AREAS SOUTH OF ST. LUCIE CANAL
PLEMENT 47--DETAIL DESIGN MEMORANDUM
VEE 31 (WEST), CANAL 113 AND CONTROL
STRUCTURES 174 AND 175.

Attachment
A

DEPARTMENT OF THE ARMY
ONVILLE DISTRICT, CORPS OF ENGINEERS
ACKSONVILLE, FLORIDA

NOVEMBER 17, 1967

SERIAL NO. 15

in core boxes, and stored at the Dredge Depot in Jacksonville, Florida. The borings were taken for foundation and permeability studies. All borings were grouted upon completion.

b. Materials encountered.--White to buff limestone is present at ground surface (elevation plus 5.0 m.s.l.) and extends to below elevation minus 30.0. It is medium hard above minus 23.0 with many thin harder layers. One prominent hard layer, averaging 4 to 6 feet in thickness lies between minus 8.0 and minus 15.0. Below minus 23.0 the rock is hard. Beds of slightly silty sand, three feet or less in thickness, are present within the limestone mass. In addition to its variable hardness, it is porous, permeable, fossiliferous and is known to contain solution holes. A geologic section for the structure is shown on plate 31.

c. Foundation conditions.--The structure will be founded on limestone of sufficient strength to support the structure.

d. Dewatering.--Based on recharge test information, a sheet pile cutoff and tremie seal would be required and specified in contract plans.

e. Excavation.--Excavation will be in consolidated materials which will require blasting or ripping.

f. Contract plans.--Additional core borings would not be required for contract plans. A typical core boring log and applicable notes, as will appear on contract plans, are shown on plates 18A, 18B, and 19, respectively.

D. STRUCTURAL DESIGN

11. General.--Levee 31(West) is part of a levee system in the southeastern portion of Dade County. Specifically, Levee 31(West) is designed to prevent flooding from the Everglades National Park into agricultural and industrial areas lying to the east. The levee borrow canal is designed to convey flow to replenish the fresh water supply in the Taylor Slough area of the park. Structure 174 will control releases to the borrow canal from the Levee 31 (North) borrow canal. Structure 175 will maintain the water level in the borrow canal and regulate additional discharge overland south of State Road 27. Canal 113 will discharge runoff, collected in the slough west of Homestead, to Canal 111, Section 3 Extension.

12. Levee 31(West).--a. Alinement.--The levee extends from its junction with Levee 31(North) to the Everglades National Park boundary which it then follows southward for approximately 8 miles. The alinement is shown on plates 2, 3, and 7 through 14.

ARMY Co.E.
ocument

Army Corps History

SAJEN-HW

2 March 1987

FACT SHEET

SUBJECT: Frog Pond History and Operations

1. History of L-31W Authorization

a. Comprehensive Plan for Flood Control and Other Purposes, C&SF Project. House Document 643 (80th Cong, 2nd Sess) dtd May 6, 1948. The Comprehensive Plan did not include L-31W or C-111. According to the plan, L-31N would have been extended directly southward and would have terminated at the ENP (eastern panhandle) boundary. From that point, a levee with spillway structures would have extended eastward just north of the Park and would have tied into L-31E. The Comprehensive Plan map is enclosed.

b. Flood Control Act 1954 (PL 780-83) authorized that portion of the Comprehensive Plan that includes L-31.

c. U.S. Senate Committee on Public Works Resolution adopted November 15, 1954 directed the Chief of Engineers to review the Comprehensive Plan with a view toward determining whether modifications to the recommended plan would be advisable with respect to westward expansion requirements of metropolitan Dade County between the coastal ridge and the Conservation Areas.

d. Survey-review Report on C&SF Project, South Dade County (June 28, 1961). The South Dade County Survey Report was prepared in response to the November 15, 1954 Senate Resolution. It recommended a plan that would have conveyed all runoff from the area east of L-31 and north of Homestead to the east via six proposed eastward canals (C-101 through C-106). The area south of Homestead would have been drained southward to Florida Bay, Long Sound, Barnes Sound, and Card Sound via six proposed southward canals (C-107 through C-112). This plan did not include L-31W. A map of the plan is enclosed.

e. Part V, Supplement 37, GDM - South Dade County (September 12, 1963). In response to the desires of ENP, SFWMD, and land developers, the survey report's recommended plan was modified by the GDM. The GDM's recommended plan still provided the same degree of flood protection (40% SPF) as the survey report plan, over the same area, and by the same general means - gravity drainage. With Aerojet and Seadade Corporations being major land owners when the GDM was prepared, it was anticipated that industrial development would be an important land use in south Dade County.

Attachment
B

(1) Agency and Local Positions on Considered Plans.

(a) ENP. At this time, the Park's goal was to receive as much water as possible from the C&SF Project. The Park requested that excess water from the western portion of south Dade County be drained to Taylor Slough in ENP. This is the reason L-31W was added to the plan. The Park also requested that the southward canals (C-107 through C-112) be terminated north of the Park's boundary to facilitate overland flow. The Park's letter commenting on the GDM's recommended plan is provided as Enclosure 3.

(b) Fish and Wildlife Agencies concurred with ENP's comments and also requested that an east-west canal be added to join the southern termini of C-109 through C-111 to facilitate outflow from those canals over a wider front. The agencies requested that the east-west canal not be extended to tidewater. However, it was found necessary that the canal extend to tidewater to enable adequate conveyance.

(c) Aerojet. For the type of development planned by Aerojet at that time, the corporation felt that elimination of surface ponding and overland flow would not be necessary in the portion of their holdings generally below the three-foot contour.

(d) C&SF Flood Control District recommended that improvement of C-101, C-104, and C-105 not be included and that primary drainage be provided through C-102 and C-103. The District also requested intermediate structures in C-103 and C-111 to permit holding higher water levels.

(2) GDM Recommended Plan is shown in Enclosure 4. According to the plan, about 28 square miles of western south Dade County (east of the Seaboard Air Line Railroad) would be discharged to L-31W borrow canal via S-174 and would flow toward ENP into Taylor Slough during design storm conditions. A larger drainage area extending as far east as S-165 and S-167 could be drained to L-31W borrow canal and ENP during lesser runoff conditions.

f. Southwest Dade County Survey-Review Report (October 15, 1963). The survey-review report developed a plan that would provide seasonal protection for agriculture in the area bounded by L-31 on the east, Tamiami Trail on the north, and ENP on the west and south. During the wet season, water would be allowed to pond in this area according to the plan. L-31W would prevent wet season ponding from affecting South Dade County. During the dry season, some runoff from the protected area would be discharged through L-31W borrow canal. This plan was not supported by the local sponsor and has never been constructed. The Southwest Dade County works have been placed in the inactive category.

g. Part V, Supplement 47, DDM-Levee 31 (West), C-113 and Control Structures 174 and 175 (November 17, 1967). This DDM along with two other DDM's (Part V, Supplements 43 and 44) modified the GDM's plan slightly. S-174 and S-176 were moved approximately 1.5 miles to the north. Enclosure 5 is the plan addressed in Part V, Supplement 47.

h. ENP - South Dade County Conveyance System (Authorized by PL 90-483), 90th Cong, 2d Session, Flood Control Act of 1968). The Conveyance System was authorized for the purpose of conservation and conveyance of water supplies to ENP, for expanding agricultural and urban needs. As a part of the Conveyance System necessary modifications to the C&SF Project were constructed upstream of L-31W (including improvement of the L-31N borrow canal upstream of its confluence with C-103) to enable adequate delivery of water to Taylor Slough and the Park's eastern panhandle. No canal improvements were made to L-31W or C-111 as a part of the conveyance system. However, S-332 was added as a part of the system to pump water deliveries to Taylor Slough from L-31W borrow canal. The pump capacity is 160 cfs and it is operated to satisfy the minimum monthly water delivery requirements of Taylor Slough as specified in PL 91-282. In 1976, the specific operation of S-332 was agreed upon in an Agreement and Permit signed by the Corps of Engineers, National Park Service, and the C&SF Flood Control District. Although the total annual volume of 37,000 acre-feet to be delivered to Taylor Slough remained the same, the monthly distribution used in the agreement varied slightly from that prescribed by PL 91-282. Since construction of S-332 was completed in 1980, water deliveries have been provided to Taylor Slough in accordance with the requirements of the 1976 Agreement and Permit.

2. L-31W Culverts. At the request of SFWMD by letter dated November 9, 1965, two culverts were added to L-31W to maintain the natural southwesterly flow into Taylor Slough until secondary drainage facilities were constructed. It was expected that the culverts would generally discharge water only in the dry season. The two culverts were 48 inch diameter with invert elevations at 0.0 ft, NGVD. The culverts were provided with flap gates. Sometime in the late 1970's, these culverts were removed by SFWMD.

3. Operation of L-31W/C-111. The original operational plan for L-31W (SAJWH ltr dtd 2-14-66, copy enclosed) called for leaving S-175 and S-176 closed during normal wet seasons to provide sufficient head for the discharge of water from L-31W into Taylor Slough. Provided that L-31N borrow canal could be maintained at 6.5 ft, NGVD under these conditions, 500 cfs capacity could be discharged from L-31W to the slough. However, under flood conditions when S-176 would be open, L-31N would be drawn down to elevation 6.0 ft, NGVD. Since 500 cfs of flood flows were to be discharged via L-31W and since stages in the L-31W borrow canal would be about 5.2 ft, NGVD--at which stage only limited flows would pass to the slough--S-175 would be the major L-31W outlet for design flood flows. Consequently, S-175 is designed for 500 cfs capacity.

The area between L-31W and C-111 was considered to be included in the C-111 basin. Therefore, secondary drainage of this area (when constructed) would discharge into C-111, not L-31W borrow canal. At this time, no secondary drainage works have been constructed. It has been Corps policy (as stated in House Document 186, 85th Cong, 1st Sess, May 27, 1957,) that the C&SF Project ". . . provides major drainage channels, outlets, and controls. The local landowner, with cooperation of the Flood Control District, provides the necessary secondary land-drainage and control system."

Current authorized operating and design criteria for this system are provided below. The design headwater and tailwater stages and discharge shown in parentheses in the table represent the design conditions for making water supply deliveries during roughly a one-in-ten year drought. The other design values provided are for flood control conditions (40% SPF).

Authorized Operating Criteria

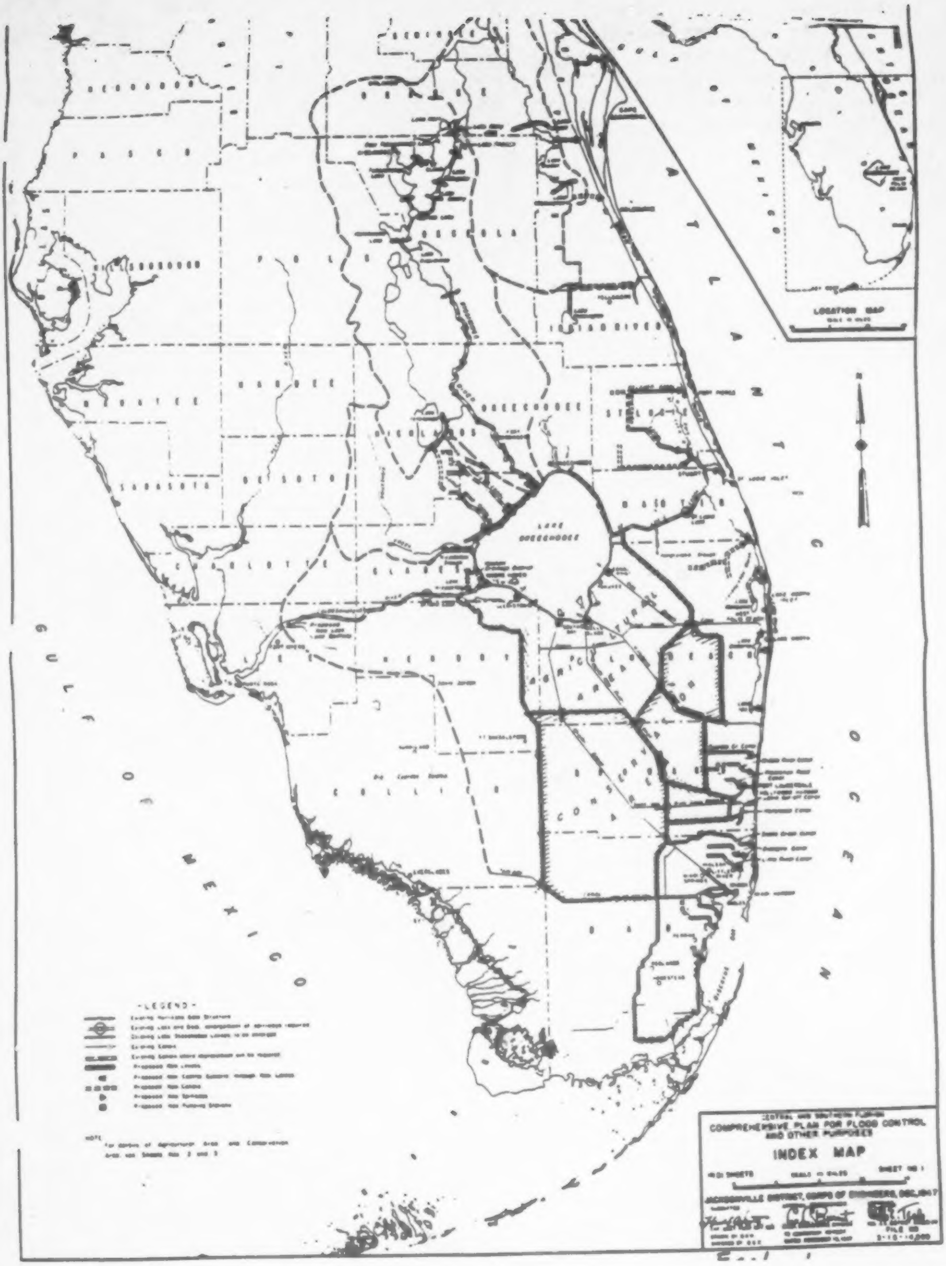
	Design			Optimum	
Structure	HW	TW	Q	HW	TW
S-174	6.0	5.5(3.0)	500(210)	5.3	4.5
S-175	5.0	4.5	500(275)	4.5	—
S-176	6.0(4.6)	5.5(3.0)	630(275)	5.5	4.5
S-177	4.3(3.0)	3.7(2.0)	1400(135)	4.5	2.0

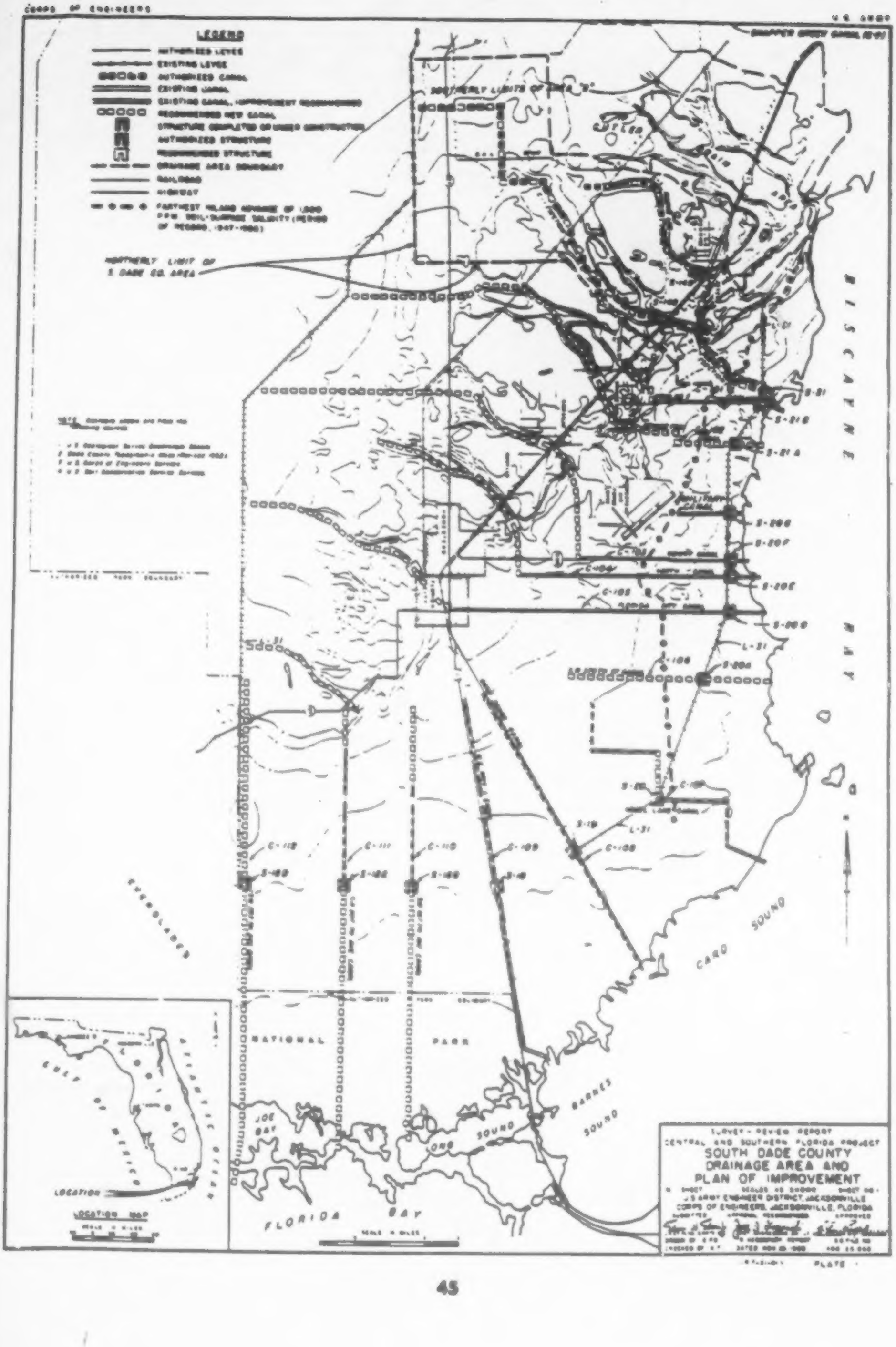
4. Frog Pond Drawdowns. The Frog Pond consists of about 5,000 acres located between L-31W and C-111. A portion of the area, lying along the eastern edge adjacent to C-111, has been used for agriculture since the 1920's. Ground elevations are relatively high in this area. However, historically the area was planted after water levels had receded to acceptable levels. There are no historic data available as to when planting was possible before L-31 was constructed. The land is now owned by Aerojet Corporation and is leased for agricultural use.

Farmers have requested that water levels in L-31W and C-111 be lowered late in wet season to allow earlier land preparation for planting tomatoes. Prior to 1981, there were no water management actions taken to benefit agriculture in the Frog Pond. In 1981 (following severe flooding associated with Tropical Storm Dennis), SFWMD, ENP, and the farmers developed operating criteria that constituted the basis for operations in 1982 and 1983. These criteria called for maintaining a wet season stage of 4.5 ft, NGVD upstream of S-175 and S-177. During the dry season, supplemental water deliveries would be made as necessary to maintain these stages at 3.0 ft, NGVD, if sufficient water was available. There was no intentional lowering of stages for agriculture. The criteria stated that after stages had naturally receded and tomatoes were planted, S-175 and S-177 discharges would be made following intense rainfall events (approximately 5 inches) to alleviate flooding.

In 1984, farmers stated that market conditions required earlier land preparation and planting in the Frog Pond. After a series of coordination meetings between ENP and the farmers, an agreement was reached to conduct a one-year test to evaluate the impacts of the Frog Pond drawdown on Taylor Slough. The operating criteria used during the test was honored by SFWMD. It called for L-31W and S-177 headwater stages to be lowered to 3.5 ft, NGVD by 15 October. This stage was to be maintained in L-31W throughout the growing season. After the tomatoes were planted, the S-177 headwater was to be maintained at 3.7 ft, NGVD until the crops were harvested. As a part of the two-year test of Rain-Driven Water Deliveries to ENP, the same (1984) operating criteria was used for drawdown of water levels in the Frog Pond. To date, Frog Pond drawdowns have been conducted in 1984, 1985, and 1986.

Enclosures
1. C&SF Project Comprehensive Plan
2. South Dade County Survey Report Plan
3. ENP Comments (ltr dtd 1-31-63) on Part V Supplement 37
4. Part V Supplement 37, GDM Plan
5. Part V Supplement 47, DDM Plan
6. SAJWH ltr dtd 2-14-66


GULF OF MEXICO
ATLANTIC OCEAN
LAKE OKEECHOBEE
PASCO
POLK
OSCEOLA
MANATEE
HARDEE
SARASOTA
DE SOTO
CHARLOTTE
GLADES
HENDRY
COLLIER
LOCATION MAP
- LEGEND -
CENTRAL AND SOUTHERN FLORIDA
COMPREHENSIVE PLAN FOR FLOOD CONTROL AND OTHER PURPOSES
INDEX MAP
SHEET NO. 1
JACKSONVILLE DISTRICT, CORPS OF ENGINEERS, DEC. 1947


CORPS OF ENGINEERS
U.S. ARMY
LEGEND
AUTHORIZED LEVEE
EXISTING LEVEE
AUTHORIZED CANAL
EXISTING CANAL
EXISTING CANAL, IMPROVEMENT RECOMMENDED
RECOMMENDED NEW CANAL
STRUCTURE COMPLETED OR UNDER CONSTRUCTION
AUTHORIZED STRUCTURE
RECOMMENDED STRUCTURE
DRAINAGE AREA BOUNDARY
RAILROAD
HIGHWAY
FARTHEST INLAND ADVANCE OF 1,000 PPM. SOIL-SURFACE SALINITY (PERIOD OF RECORD, 1947-1950)
SOUTHERLY LIMITS OF AREA "B"
NORTHERLY LIMIT OF S. DADE CO. AREA
BISCAYNE BAY
S-21
S-21B
S-21A
S-20G
S-20F
S-20E
S-20D
S-20A
S-20
S-19
S-18
L-31
C-108
C-109
C-110
C-111
C-112
S-160
S-166
S-168
C-102
C-103
NATIONAL PARK
EVERGLADES
CARD SOUND
BARNES SOUND
JOE BAY
LONG SOUND
FLORIDA BAY
GULF OF MEXICO
ATLANTIC OCEAN
LOCATION
LOCATION MAP
SURVEY - REVIEW REPORT
CENTRAL AND SOUTHERN FLORIDA PROJECT
SOUTH DADE COUNTY
DRAINAGE AREA AND
PLAN OF IMPROVEMENT
SCALES AS SHOWN
U.S. ARMY ENGINEER DISTRICT, JACKSONVILLE
CORPS OF ENGINEERS, JACKSONVILLE, FLORIDA
PLATE 1

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
EVERGLADES NATIONAL PARK
and
FORT JEFFERSON NATIONAL MONUMENT
P. O. BOX 279
HOMESTEAD, FLORIDA

IN REPLY REFER TO:
L54

January 31, 1963

Colonel Harold R. Parfitt
District Engineer
U. S. Army Engineer District
P. O. Box 4970
Jacksonville 2, Florida

Dear Colonel Parfitt:

We have reviewed the alternate plan of improvements being proposed by the Corps for the South Dade Flood Control Project which were forwarded to this office by Mr. Joe Koperski, Chief, Engineering Division on January 15. The proposed plan was also reviewed with Mr. Farrar and Mr. Rawls when we were in your office January 24.

It is the understanding of this office that the proposed changes in flood control works will permit drainage of excess water from lands in South Dade County westward of the Seaboard Airline tracks to be directed toward Everglades National Park and released into the Taylor Slough drainage area. Our understanding is that gated structures in the proposed canals will permit holding the level of the water up to approximately elevation 6 feet and the extension of L-31 southwest to the easterly boundary of the Aerojet property and a spur canal to a corner of the Park boundary approximately two miles north of the Park Headquarters will be constructed to the headwaters of Taylor Slough. In times of high water excess flows would be able to run from canals to the L-31 and overflow out of the spur canal on the Park side into Taylor Slough. It will also be possible that excessive flows may be bypassed and carried south of State Route 27, along the Park boundary, and allowed to flow southward spreading into Park lands and Aerojet properties.

It also appears possible that additional water can be carried south and eastward in a canal through Aerojet lands to connect with C-111 and flow southeastward to C-109 along U. S. Highway 1 just north of the Park boundary. It is understood that excess fresh water flow from the north, through this latter canal, would also at times of high water overflow on the south side of the canal to Park lands just west of U. S. 1.

Attachment
C

It is our opinion that the proposed works as we understand them by the description above would be beneficial to the Park in supplying more water from the South Dade area into the Taylor Slough and the eastern portion of the Park where there is a critical need for fresh water. We are, therefore, very much in favor of the suggested plan. Since Mr. Alfred Vick III, Hydraulic Engineer of the Regional Office and Mr. Allison vanV. Dunn, Chief of the Water Resources Branch of the Washington Office were present at the meeting of January 24 in your office I believe you will also receive favorable comments from them on your proposal.

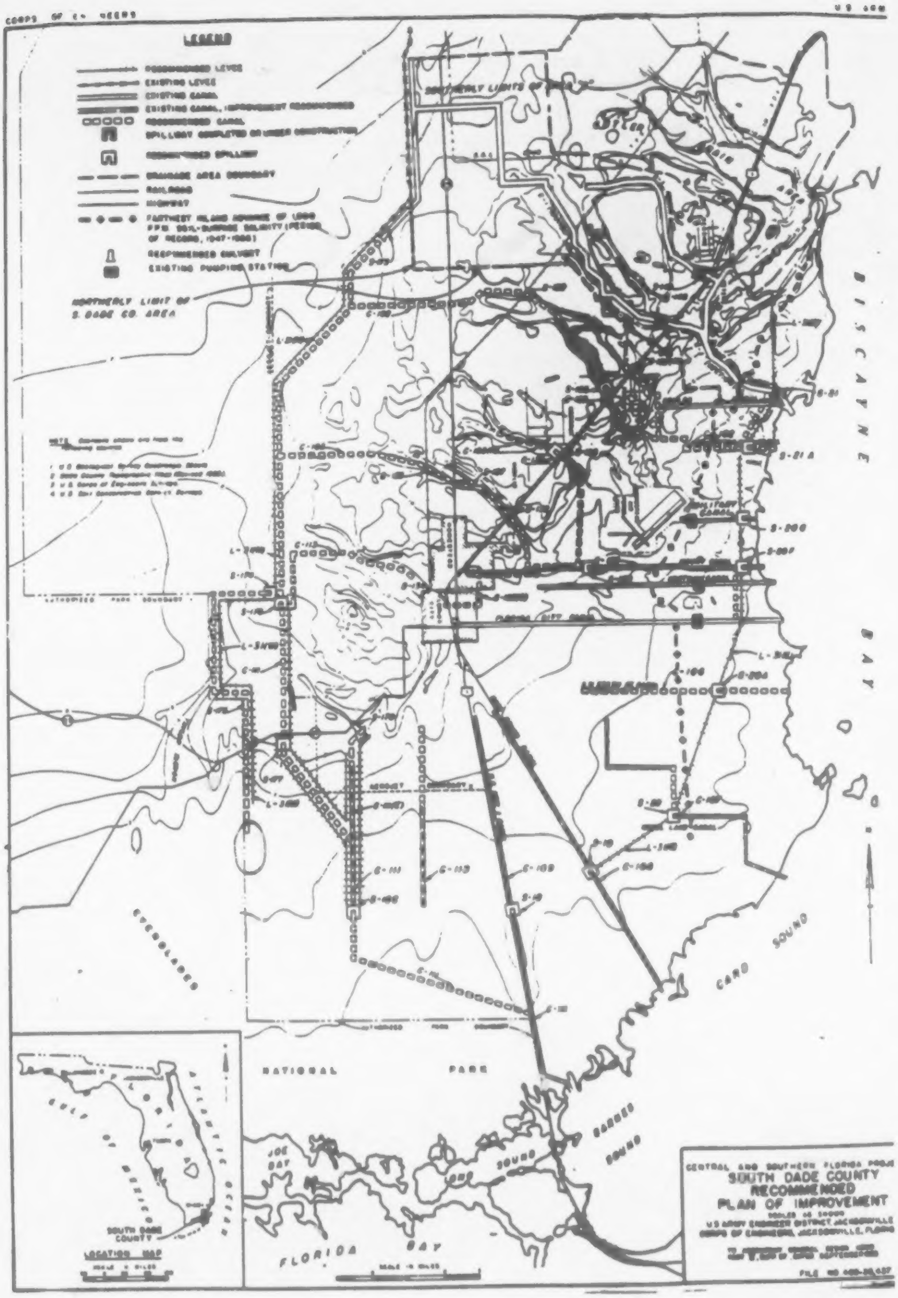
The only suggested change we have for you to consider, and which would also require discussion with the Aerojet Corporation is as follows:

> We suggest that the canal in the Aerojet property be run directly eastward from Salinity Structure 18-C to S-18 where it would be possible for Aerojet to avail themselves of the lower part of C-109, or if there is any relation between Aerojet and the canal being dug eastward from C-108 toward Card Sound a canal from S-18 to S-19 would make this possible. By moving this canal North this would permit the natural flow from several square miles of Aerojet property to continue into the eastern portion of the Park.

A similar proposal was made by the U. S. Fish and Wildlife Service in a letter of August 26, 1959 from Regional Director Walter A. Gresh. While I realize the situation has been changed somewhat by the Aerojet General now being in the picture it may be possible that such a change would fit in with their plans.

Sincerely yours,

Warren F. Hamilton
Superintendent


CORPS OF ENGINEERS
U.S. ARMY
LEGEND
RECOMMENDED LEVEE
EXISTING LEVEE
EXISTING CANAL
EXISTING CANAL, IMPROVEMENT RECOMMENDED
RECOMMENDED CANAL
SPILLWAY COMPLETED OR UNDER CONSTRUCTION
RECOMMENDED SPILLWAY
DRAINAGE AREA BOUNDARY
RAILROAD
HIGHWAY
FARTHEST INLAND ADVANCE OF 1000 PPM. SOIL-SURFACE SALINITY (PERIOD OF RECORD, 1947-1956)
RECOMMENDED CULVERT
EXISTING PUMPING STATION
NORTHERLY LIMIT OF S. DADE CO. AREA
SOUTHERLY LIMITS OF AREA
BISCAYNE BAY
S-21
S-21 A
S-20 G
S-20 F
S-20
L-31E
C-103
C-102
C-100
C-111
C-113
C-109
L-31N
L-31W
S-18
S-176
S-177
S-178
S-179
S-165
EVERGLADES
NATIONAL PARK
CARD SOUND
BARNES SOUND
JOE BAY
FLORIDA BAY
GULF OF MEXICO
ATLANTIC OCEAN
FLORIDA
SOUTH DADE COUNTY
LOCATION MAP
CENTRAL AND SOUTHERN FLORIDA PROJECT
SOUTH DADE COUNTY
RECOMMENDED
PLAN OF IMPROVEMENT
SCALES AS SHOWN
U.S. ARMY ENGINEER DISTRICT, JACKSONVILLE
CORPS OF ENGINEERS, JACKSONVILLE, FLORIDA
FILE NO.

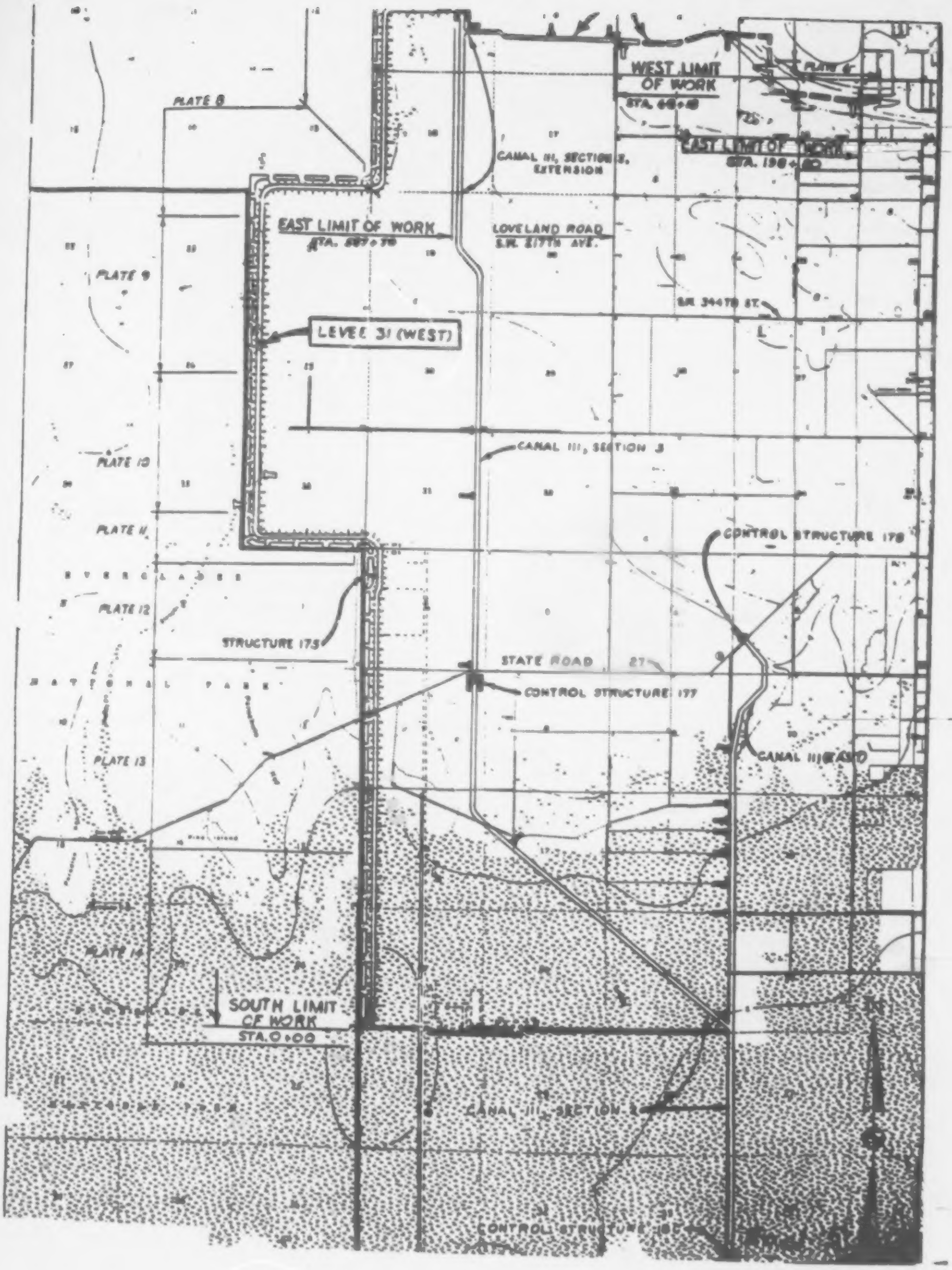


PLATE 8
WEST LIMIT OF WORK
STA. 66+18
CANAL 111, SECTION 3, EXTENSION
EAST LIMIT OF WORK
STA. 198+00
EAST LIMIT OF WORK
STA. 587+70
LOVELAND ROAD
S.W. 217TH AVE.
PLATE 9
S.W. 344TH ST.
LEVEE 31 (WEST)
PLATE 10
CANAL 111, SECTION 3
PLATE 11
CONTROL STRUCTURE 178
EVERGLADES
PLATE 12
STRUCTURE 175
STATE ROAD 27
NATIONAL PARK
CONTROL STRUCTURE 177
PLATE 13
CANAL 111 (EAST)
PLATE 14
SOUTH LIMIT OF WORK
STA. 0+00
CANAL 111, SECTION 2
CONTROL STRUCTURE 18

SAJWE - 14 February 1966

Mr. W. V. Storch
Director, Engineering Division
Central and Southern Florida
 Flood Control District
P. O. Box 1671
West Palm Beach, Florida 33402

✓x 1505-22 (C+SF-Everglades Natl Park) Gen
✓x 1504-03 (C+SF) Water Control
✓x 1505-25 (C+SF-So Dade County) Proj Gen.

Dear Mr. Storch:

Reference is made to your letters of 9 November and 19 November 1965 (7-L 31W-81 and X7-L 31W-82) concerning L-31(W) and overflow to the Everglades National Park.

We have the following comments on the recommendation in your 19 November letter.

Paragraph 2.--We appreciate the ground profiles along the park boundary that you furnished with your 9 November letter. They have been very helpful in our studies to date.

Paragraph 3.--The overflow section in the upper 3,500 feet mentioned in your letter probably would not serve any useful purpose. In addition, the storage volume of this area may rob Taylor Slough of replenishment during dry-season releases from S-174. We will provide a built-up berm to elevation 5.5 in this reach, provided the Park Service concurs.

Paragraph 4.--Your recommended optimum water control of elevation 4.5 for S-175 is reasonable. Accordingly, the mound or built-up berm along the west side in the 6,200-foot overflow reach should be to elevation 4.5. It is pointed out that this "mound" will be only 0.7 foot high at the highest point. East of this section in the reach to S-175, the mound should again be elevation 5.5.

Paragraph 5.--We agree that a controlled culvert or other device should be installed in the west-side mound in the thread of the slough. We believe, however, because of the limited head differential, that more capacity should be provided than one 36-inch culvert. At this time, we are considering something in the neighborhood of two 48-inch culverts. We will make a final determination of the culvert size during detail design studies.

Attachment

D

Paragraph 6.--The area to the east of L-31(W) was considered in the drainage area of C-111, for when the area is developed, positive drainage to the west cannot be guaranteed. However, that area which is lower than the optimum for C-111 should be drained to L-31(W) until secondary facilities are developed. Therefore, a culvert with flap gate will be provided through the levee in the thread of Taylor Slough, as you recommend. This culvert will be sized during detail studies.

Paragraph 7.--The overflow capabilities of L-31(W) at Taylor Slough have been studied at some length. It is difficult to give an exact overflow discharge at any particular time because of the varying flood conditions. Generally, the design conditions can be broken into three categories:

a. Dry seasons

b. Normal "wet" seasons

c. Design flood conditions

The overflow characteristics vary for each of these conditions. The most overflow could be attained during the dry season. However, this is when the least water is available, and it is for this condition that we are providing the culverts in the west mound. In normal wet seasons, when stages in L-31(N) are easily maintained at optimum, sufficient head is available to provide water to Taylor Slough, since Structures 175 and 176 need not be opened unless desired. It is for this condition that we will be able to deliver up to 500 cubic feet a second to Taylor Slough, providing stages in L-31(N) can be maintained at about elevation 6.5. However, during design flood conditions, when Structure 176 is open, the water surface in L-31(N) is drawn down to about elevation 6.0. Since 500 c.f.s. of flood flows are to be removed via L-31(W), and since stages in L-31(W) borrow canal in the vicinity of Taylor Slough would be only about 5.2 feet--at which stage only limited flows could be removed under nonflood conditions--the only positive outlet for the 500 c.f.s. is via S-175 and L-31(W) south of State Road 27. For these reasons, S-175 and L-31(W) south of that structure are designed for 500 c.f.s.

Paragraph 8.--Your comments concerning inflow to L-31(W) between Structures 174 and 175 will be considered during preparation of detail design studies. It appears certain that there will be some uncontrolled inflow to the canal in that reach. In addition, the relocation of Structure 174 has increased the length of the canal and may require some enlargement to maintain the desired stages at Taylor Slough.

It appears we are in general agreement on the design of L-31(W). Any further comments and recommendations you wish to make should be forwarded prior to detail design studies, which are scheduled for completion in September of this year. A copy of this letter is being forwarded to Mr. Frank Nix, Hydrologist, Everglades National Park.

Sincerely yours,

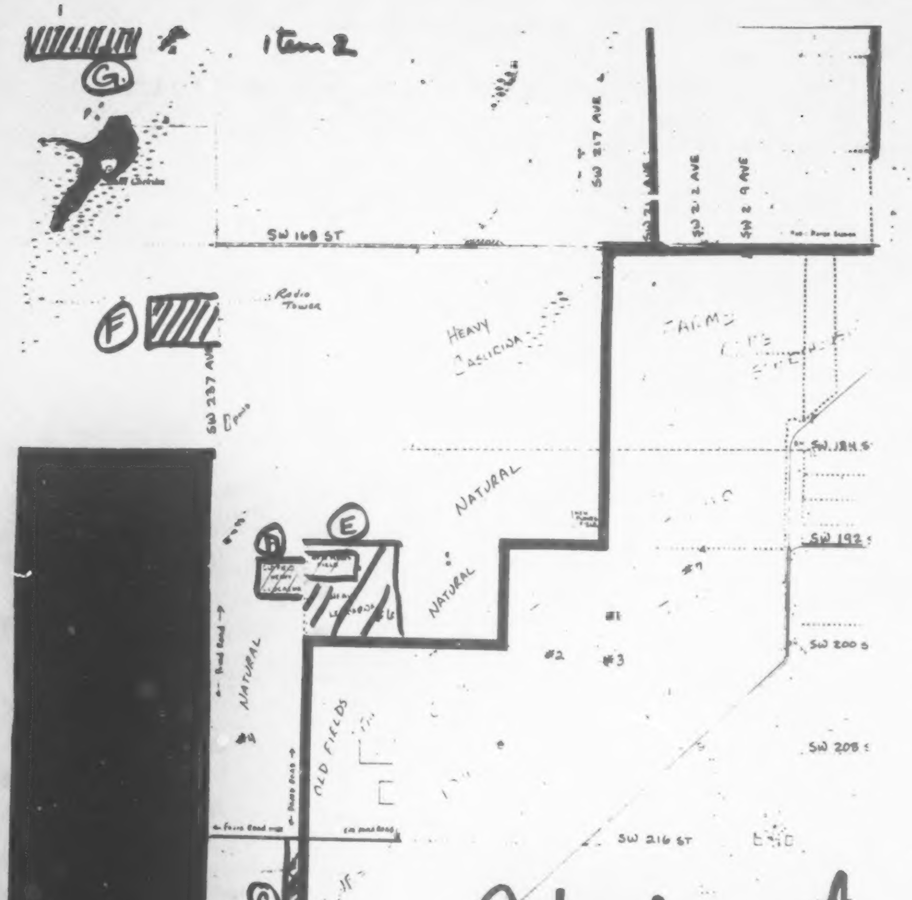
JOE J. KOPERSKI
Chief, Engineering Division

Copy furnished:
Mr. Frank Nix
Hydrologist
Everglades National Park
Box 279
Homestead, Fla.

Mr. Davis/eb
Mr. Rawls
Mr. Matzick

M&R, please note: Above copy furnished Mr. Nix is being mailed this date to Mr. Nix with transmittal letter.

Item 2


G
F
Radio Tower
SW 237 AVE
SW 168 ST
SW 217 AVE
SW 212 AVE
SW 2 9 AVE
HEAVY CASUCINA
FARMS
SW 184 S
SW 192 S
SW 200 S
SW 208 S
SW 216 ST
SW 232 ST
SW 249 ST
SW 256 ST
SW 264 ST
NATURAL
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OLD FIELDS
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SW 227 AVE
SW 222 AVE
SW 217 AVE
SW 212 AVE
SW 207 AVE

[redacted]

Attachment E

"Protecting South Florida's Water Resources for 40 Years"
1949-1989

South Florida Water Management District

P.O. Box 24680 • 3301 Gun Club Road • West Palm Beach, FL 33416-4680 • (407) 686-8800 • FL WATS 1-800-432-2045

Attachment
F

May 22, 1989

Honorable Bruce F. Vento, Chairman
Sub-Committee on National Parks & Public Lands
House Annex 1, Room 812
Washington, DC 20515

Dear Chairman Vento:

This is to provide additional information regarding the hydrologic characteristics of Northeast Shark River Slough (NESRS) and the Frog Pond agricultural area. I have attached a sketch and table from one of our Technical Publications showing the number and location of hydrologic monitoring sites in the vicinity of the Park expansion area and the Frog Pond . The large number of gages will give you a good idea of how closely we have monitored this system in recent years.

It is important to recognize that the expansion of the Park and the eventual restoration of Shark River Slough are not directly related to the experimental program of water releases to NESRS that has been underway since 1984. The former will have no detrimental effect whatever on the Frog Pond and will, if anything, improve conditions there by reducing the flow into the C-111 canal (which borders the Frog Pond on the east) from the north. The latter, while it has resulted in more flow through C-111 in the wet season, has not reduced the flood protection available to the Frog Pond.

Changing the Park boundary, which is what HR1727 proposes, does nothing to affect the flow of water. The restoration of the Slough, which will be made possible by the change in boundaries, will still require a federal public works project to achieve the necessary water management changes to restore flow to the slough. The Jacksonville District of the Corps has essentially completed the engineering analysis for this project. Obviously their rules would not allow them to propose structural changes which would have adverse consequences for private property. Their plan calls for pumping all flood runoff from north of S-331 back into NESRS. This will eliminate the potential for the restoration of flow to NESRS to cause any harm to the downstream areas. The farmer's hydrologist, Mr. Waller, admitted as much in response to your question during the hearing last Tuesday. The Frog Pond will not be harmed at all by the restoration of Shark River Slough which is being proposed through the Corps' design process.

In 1984 the District, with the cooperation of the Corps and the Park, began an experimental program of restricted water releases to NESRS. To reduce the likelihood of flooding on developed property adjacent to the slough, we agreed to operate the L-31N canal (just north of C-111) at a lower water level than had been

Governing Board:
James F. Garner, Chairman - Fort Myers
Doran A. Jason, Vice Chairman - Key Biscayne
J.D. York - Palm City
Arsenio Milian - Miami
Fritz Stein - Belle Glade
Mike Stout - Windermere
Ken Adams - West Palm Beach
Valerie Boyd - Naples
James E. Nall - Fort Lauderdale
John R. Wodraska, Executive Director
Tilford C. Creel, Deputy Executive Director

used in the past. This was successful in reducing the flood risk to the residential and agricultural property west of L-31N but also resulted in a significant increase in the total volume of flow that passed through C-111 into the panhandle area of the Park. We have been very careful in the operation of the various water control structures in this basin to see that this program does not contribute to flooding problems on developed land. During the five growing seasons we have followed this strategy, there has been no evidence of flooding in the Frog Pond associated with this plan. The District is now designing an additional water control structure for the L-31N canal that will greatly reduce the volume of water that now must flow south into C-111. We plan to have this structure in place within the next year as an interim measure to help control flow in the L-31N/C-111 system until the Corps' plan for Shark River Slough is complete.

I must point out that prior to 1988 the Park, the District, and the Corps had agreed to operate the L-31W canal to provide some flood protection to the Frog Pond between October 15 and April 30. This was done for three years while Park researchers gathered data on impacts within the Park associated with this operation. This was discontinued in 1988, leaving the west side of Frog Pond with essentially no flood protection during the growing season. In some years, like 1989, this is not a problem since it is normally dry during that time of year, but in other years there is enough rain to cause serious problems for agriculture. This is not related to the proposed restoration of NESRS or our experimental water delivery program, but to the current rules by which we must operate the L-31W canal.

This is a complicated issue and I hope this has been of some help to you. I have enclosed a couple of sketches of the area to help locate some of the facilities I have discussed. Please call if I can be of any more help.

Sincerely,

Tom MacVicar

for John R. Wodraska
Executive Director
South Florida Water Management District

Enclosure
JRW/TKM/ja

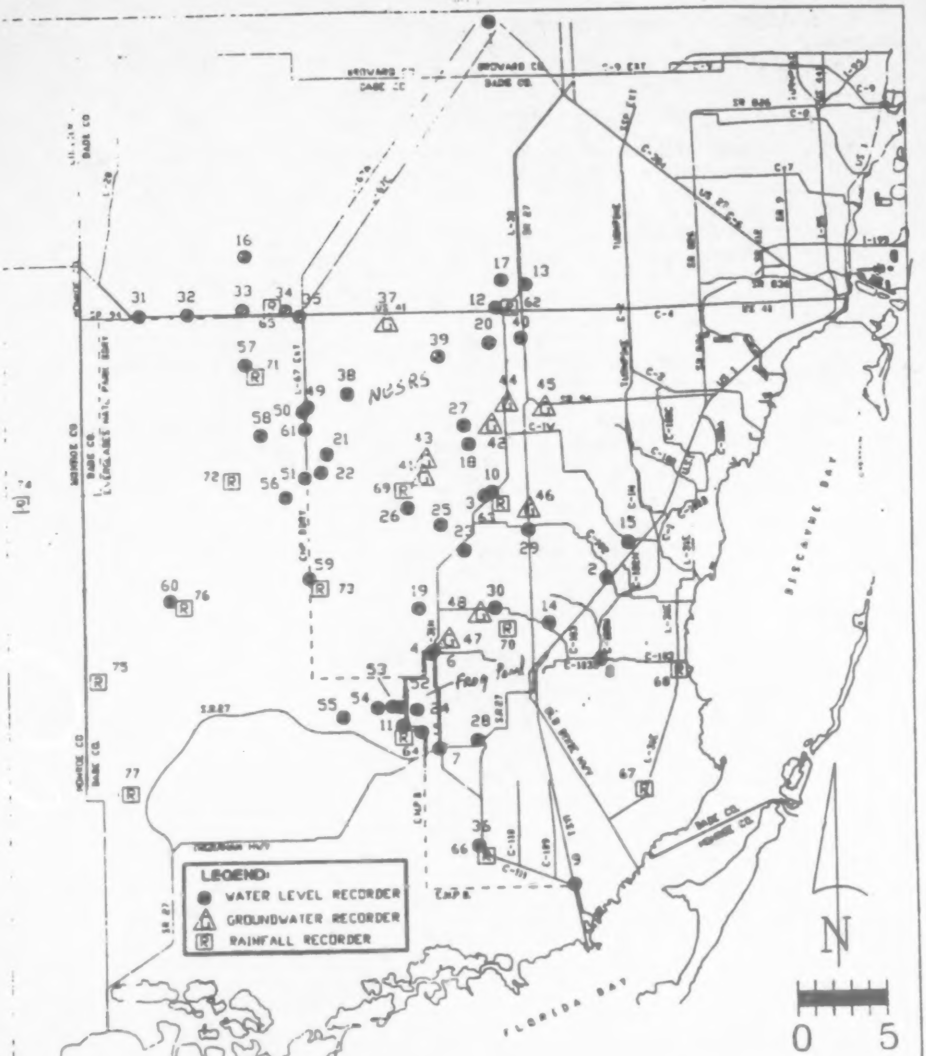
BROWARD CO
DADE CO
C-9 EXT
C-9
C-8
C-7
C-6
C-4
C-2
C-1W
C-100
C-102
C-103
C-111
L-67 EXT
L-30
L-31N
SR 27
SR 94
US 41
US 1
I-95
TURNPIKE
MONROE CO
DADE CO
EVERGLADES NAT'L PARK BDRY
ENP BDRY
NGSRS
Frog Pond
BISCAYNE BAY
FLORIDA BAY
S.R. 27
DADE CO.
MONROE CO.
OLD DIXIE HWY
LEGEND:
● WATER LEVEL RECORDER
△ GROUNDWATER RECORDER
R RAINFALL RECORDER
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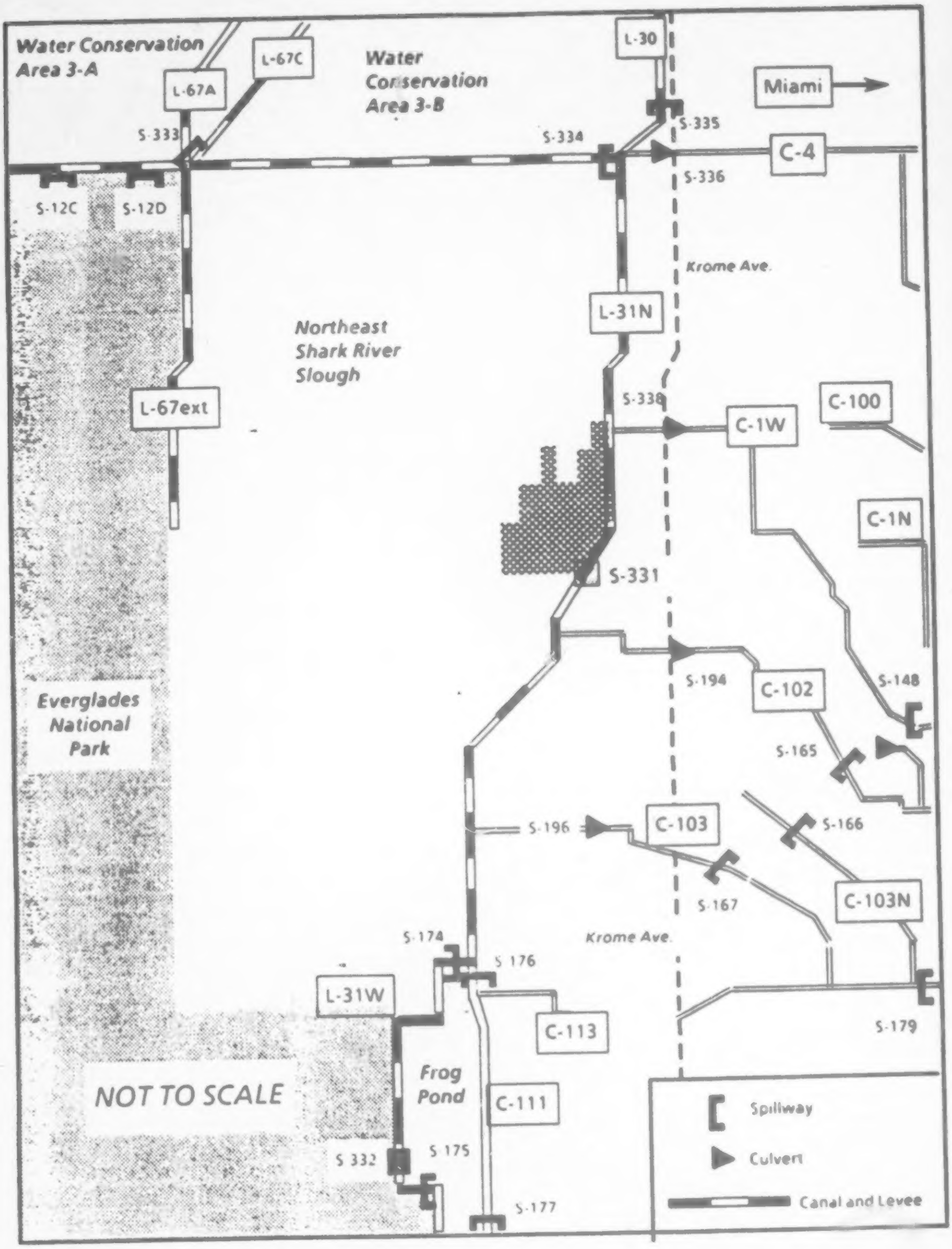
FIGURE 5. HYDROLOGIC DATA MONITORING SITES

Table 2. Data Monitoring Sites and Corresponding Map Locations

STATION	MAP LOCATION	STATION	MAP LOCATION	STATION	MAP LOCATION
S-151	1	G-3272	27	NTS3	53
S-165	2	S-178	28	NTS5	54
S-173	3	S-194	29	NTS7	55
S-174	4	S-196	30	P-33	56
S-175	5	S-12A	31	NP-201	57
S-176	6	S-12B	32	NP-202	58
S-177	7	S-12C	33	NP-206	59
S-179	8	S-12D	34	P-36	60
S-197	9	S-333	35	L-67XM	61
S-331	10	S-18C	36	S-336	62(RF)
S-332	11	G-618	37	S-331	63(RF)
S-334	12	NESS-1	38	S-332	64(RF)
S-335	13	NESS-2	39	S-12D	65(RF)
S-167	14	KROME	40	S-18C	66(RF)
S-148	15	G-1502	41	S-20	67(RF)
3-28	16	G-596	42	S-20F	68(RF)
3B-SO	17	G-3273	43	CHEKIKA	69(RF)
ANGEL'S	18	G-1487	44	HOME.EX.S.	70(RF)
RUTZKE'S	19	G-855	45	NP-201	71(RF)
NESS-3	20	G-757A	46	NP-203	72(RF)
NESS-4	21	G-789	47	NP-206	73(RF)
NESS-5	22	S-196A	48(GW)	P-34	74(RF)
HUMBLE'S	23	L-67XE	49	P-35	75(RF)
FROG	24	L-67XW	50	P-36	76(RF)
S.W.200TH	25	L-67XS	51	P-38	77(RF)
MITCHELL'S	26	NTS1	52		

Note: (RF) indicates a rainfall station.
(GW) indicates a ground water recorder.


Water Conservation Area 3-A
L-67A
L-67C
Water Conservation Area 3-B
L-30
Miami
S-333
S-334
S-335
C-4
S-336
S-12C
S-12D
Krome Ave.
L-31N
Northeast Shark River Slough
L-67ext
S-338
C-1W
C-100
C-1N
S-331
S-194
C-102
S-148
Everglades National Park
S-165
S-196
C-103
S-166
S-167
C-103N
S-174
Krome Ave.
S-176
L-31W
C-113
S-179
Frog Pond
NOT TO SCALE
C-111
S 332
S 175
S-177
Spillway
Culvert
Canal and Levee

DEPARTMENT OF THE ARMY
JACKSONVILLE DISTRICT, CORPS OF ENGINEERS
P. O. BOX 4970
JACKSONVILLE, FLORIDA 32232-0019

REPLY TO
ATTENTION OF

June 13, 1989

Project Management Office

Attachment
6

Honorable Bruce F. Vento
Chairman, Subcommittee on National Parks
and Public Lands
Committee on Interior and Insular Affairs
U.S. House of Representatives
Washington, DC 20515

Dear Mr. Vento:

This is in response to your May 25, 1989, letter requesting comments on Mr. James Humble's May 16, 1989, testimony regarding H.R. 1727. The Jacksonville District Corps of Engineers is preparing two General Design Memorandums (GDM's) addressing modifications to the Central and Southern Florida (C&SF) Project that would improve hydrologic conditions in the Everglades in general, and Everglades National Park (ENP) in particular. Mr. Humble's testimony fails to distinguish between the issues or potential impacts of the two GDM's.

The GDM for Modified Water Deliveries to Everglades National Park is addressing structural and operational changes to the C&SF Project necessary to improve water deliveries to Shark River Slough. Plans being considered in this GDM include the restoration of flows through Northeast Shark River Slough (NESRS), which is a large part of the area H.R. 1727 would add to the Park. The plans would also include construction of a flood protection system for residential development adjacent to NESRS (the 8.5-square-mile area) to mitigate adverse impacts that would be associated with modified water deliveries to ENP. There would be no adverse hydrologic affect on the Frog Pond agricultural area as a result of plans being considered. The C-111 GDM is addressing an array of alternatives that will modify water deliveries to Taylor Slough, some of which could impact the Frog Pond. A map of existing project facilities is enclosed.

According to plans in the GDM for Modified Water Deliveries to ENP, excess water from the residential area would be pumped into the L-31N borrow canal. In order to discharge the additional inflows from the L-31N borrow canal and to preserve the canal's flood control capability, the plan also calls for a pump station that would pump water from the northern end of the canal into the upstream portion of NESRS. The pump station would also have capacity to discharge additional seepage inflows to the L-31N borrow canal that would result from restoration of flows to NESRS.

Mr. Humble is concerned that construction of the flood protection system for the 8.5-square-mile area would cause additional inflows to the L-31N borrow canal that would be discharged southward to C-111. Such inflows to C-111 would reduce the flood protection of the Frog Pond and other adjacent agricultural areas. However, the plan being considered in the GDM would not cause an additional inflow to C-111. There would be no adverse impact on flood protection for the C-111 basin, including the Frog Pond. This office has done extensive hydrologic modeling to ensure that the plans being considered would not adversely impact private property.

In conjunction with the GDM for Modified Water Deliveries to ENP, the Jacksonville District, the South Florida Water Management District, and ENP are cooperatively conducting an Experimental Program of Modified Water Deliveries to ENP that consists of iterative testing of alternative water delivery methods. As a part of this program, water deliveries are being discharged into NESRS. In the initial development of testing procedures, extensive coordination was conducted with south Dade County agricultural interests to develop and agree upon specific operational criteria to avoid increased flood risks. After 4 years of testing, there have been no reports of flood damages associated with the modified water deliveries.

During the first 3 years of the testing process, manipulation of water levels in the Frog Pond was included to allow the ENP research staff to collect data to determine the extent of hydrologic impacts inside the Park boundary. The farmers requested that water levels in the two bordering C&SF Project canals, L-31W borrow canal and C-111, be lowered by October 15 each year so land preparation can begin at the optimum time. This operation required Corps approval for temporary deviation from the authorized operating criteria for the two project canals. In a June 20, 1988 letter, the ENP Superintendant stated that the Park research staff had concluded that the extent of the impacts of lowering the L-31W borrow canal stages, as desired by the farmers, was unacceptable. Therefore, the Park could not concur with continuation of the Frog Pond drawdowns. At that time, the Corps could no longer approve deviation from the authorized operating criteria and the drawdowns were discontinued. It should be noted that during some years, water levels naturally recede to the stages desired by the farmers and require no manipulation of canal stages. This was the case in the 1988-89 growing season in the Frog Pond.

Discontinuation of the Frog Pond drawdowns was consistent with the authorized project purposes, contrary to Mr. Humble's statement. C-111 and L-31W are components of a system designed to provide flood protection to south Dade County. The original plan for this system did not include L-31W. All flood water was to be discharged eastward and southward to tidewater. L-31W was added at the request of ENP and the U.S. Fish and Wildlife Service to provide a means of discharging a portion of the excess water from the C-111 basin into the Park through Taylor Slough. Modification of the plan did not change the flood protection capability of the system.

Approved operating criteria calls for discharging excess water from the upstream basin into the L-31W borrow canal as the first priority and discharging water from the canal when the stage rises above 4.5 feet, N.G.V.D. The farmers have requested a 3.5-foot stage on October 15, which would require artificially lowering canal stages below the optimum stage.

The C-111 GDM is addressing modifications to the C&SF Project to enhance existing agricultural flood protection in south Dade County and improve water deliveries to ENP through Taylor Slough and the Park's eastern panhandle. Plans being considered in this GDM could impact the Frog Pond. The 1988 Water Resources Development Act authorized the Corps of Engineers to conduct a reconnaissance study of the feasibility of an internal drainage system in the Frog Pond. The advisability of including this study in the C-111 GDM is currently being investigated.

Thank you for the opportunity to provide input to the development of this important legislation.

Sincerely,

for Wm David Brown LTC, DDE

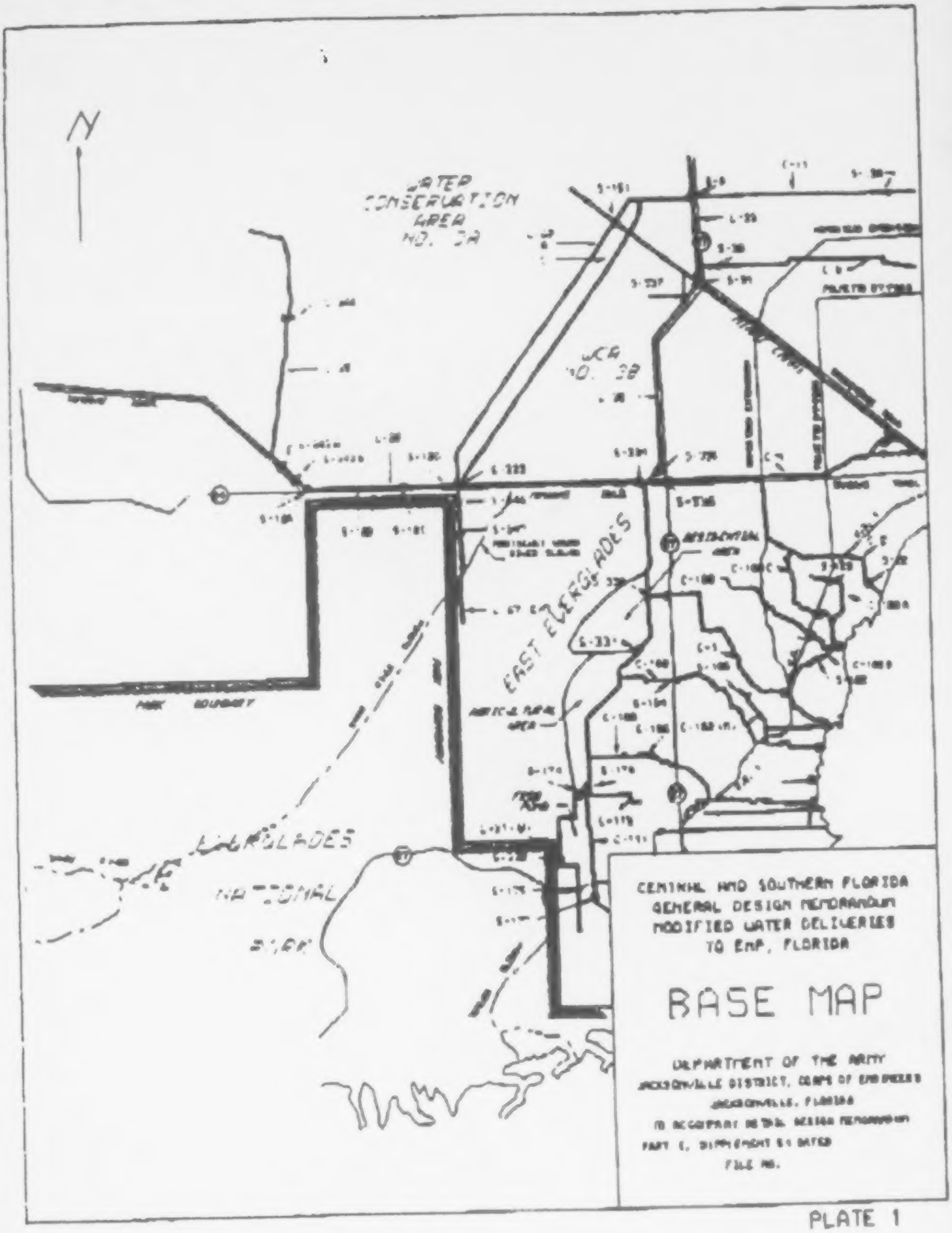
Robert L. Herndon
Colonel, U.S. Army
District Engineer

WILLIAM D. BROWN
Lieutenant Colonel, U. S. Army
Deputy District Engineer

Enclosure

Copies Furnished (w/Encl):

Commander, U.S. Army Corps of Engineers (CECW-L)
Commander, South Atlantic Division (CESAD-DL)


N
WATER CONSERVATION AREA NO. 3A
WCA NO. 3B
S-151
S-333
S-334
S-335
S-336
S-337
S-12D
S-12C
RESIDENTIAL AREA
EAST EVERGLADES
PARK BOUNDARY
EVERGLADES NATIONAL PARK

CENTRAL AND SOUTHERN FLORIDA
GENERAL DESIGN MEMORANDUM
MODIFIED WATER DELIVERIES
TO ENP, FLORIDA

BASE MAP

DEPARTMENT OF THE ARMY
JACKSONVILLE DISTRICT, CORPS OF ENGINEERS
JACKSONVILLE, FLORIDA
TO ACCOMPANY DETAIL DESIGN MEMORANDUM
PART I, SUPPLEMENT 54 DATED
FILE NO.

PLATE 1

FISCAL YEAR 1987
Annual Report of The
CHIEF OF ENGINEERS ON CIVIL WORKS ACTIVITIES

Department of the Army/Corps of Engineers

EXTRACT

REPORT OF THE . . .

JACKSONVILLE, FLA., DISTRICT

attachment
H

Beach and 2.3 feet at Boca Raton Inlet. Estimated cost (Oct. 1987 price levels) is $24,500,000 Federal and $26,900,000 cash contribution. (See Table 9-B for Authorizing Legislation.)

Local cooperation. Local interests must obtain approval by Chief of Engineers of plans and specifications prior to commencement of work and furnish assurances that they will maintain public ownership of publicly owned shores, maintain protective measures and provide periodic nourishment of protective beaches, and control water pollution.

Operations and results during fiscal year. New work: Engineering and design and supervision and administration costs were $52,294 and $6,599, respectively.

Condition at end of fiscal year. Local interests provided initial beach fill at Delray Beach which was completed in August 1973. A periodic nourishment contract at Delray Beach was awarded in FY 1978 by local interests and the contract has been completed.

45. PINELLAS COUNTY, FLA.

Location. Pinellas County is on the Gulf coast of Florida, about midway of the peninsula. It extends northerly about 39 miles from the main entrance to Tampa Bay to the vicinity of the mouth of Anclote river. (See NOAA Nautical Chart No. 11411.)

Previous project. For details see page 429 of Annual Report for 1965.

Existing project. The authorized project provides for Federal participation in preserving and protecting the shores of Pinellas County, Florida, by: restoration of 5,000 feet of beach at Clearwater Beach Island; restoration of 49,000 feet of beach at Sand Key; restoration of 9,200 feet of beach at Treasure Island; construction of 600 feet of revetment at Long Key; and advance nourishment of Long Key and periodic nourishment of each island. Estimated cost (Oct. 1987 price levels) is $20,000,000 Federal funds and $21,762,000 non-Federal funds ($21,700,000 contributed funds and $62,000 other costs). (See Table 9-B for Authorizing Legislation.)

Local cooperation. Local interests must: (a) contribute in cash the required percentages of the first costs of work provided by the Corps of Engineers, the percentages varying with the type of beach ownership; 94.1 to 50 percent of the beach restoration at Clearwater Beach; 98.1 to 50 percent of the improvement at Sand Key; 94.3 to 50 percent of the improvement at Treasure Island; and 50 percent of the first cost of the revetment at Long Key; (b) contribute in cash an amount computed in accordance with the cost sharing provision contained in P.L. 826, 84th Congress as amended by P.L. 87-874, for beach nourishment cost for the first 10 years of the project life; (c) provide lands, easements, and rights-of-way; (d) assure maintenance and repair of the stone revetment of Long Key; (e) assure periodic nourishment of the restored beaches; (f) assure public ownership of beaches; (g) assure against water pollution; (h) hold the United States free from damages; and (i) provide beach for public use. Assurances of local cooperation were accepted March 22, 1967.

Operations and results during fiscal year. New work: Contract for Redington shore breakwater and groin cost $569,069. Contract for Long Key breakwater and beach nourishment costs were $801,000. Engineering and design and supervision and administration costs for the fiscal year were $366,842 and $89,977, respectively.

Condition at end of fiscal year. Construction of the project commenced in 1969 and is 28 percent completed. Total costs under existing project through September 30, 1987 were $5,441,215 Federal funds and $2,198,056 contributed funds for new work and $5,625 for maintenance.

46. OTHER AUTHORIZED BEACH EROSION CONTROL PROJECTS

(See Table 9-J.)

47. BEACH EROSION CONTROL ACTIVITIES UNDER SPECIAL AUTHORIZATION

Beach erosion control activities pursuant to section 103, Public Law 87-874 (preauthorization)

Reports incurring costs during the fiscal year were Boca de Congrejos, P.R., $340; Dorado Public Beach, P.R., $5,920; Dunedin Shores, Florida, $396; Guanica Public Beach, P.R., $3,020; Gulfport, Florida, $18,986; Isla de Cabras, P.R., $286; Key Biscayne, Fla., $648,324; Playa de Santa Isabel, P.R., $18; and Puerto Nuevo Beach, P.R., $617.

Beach erosion control activities pursuant to section 111, Public Law 90-483 Mitigation of Shore Damages Attributable to Navigation Projects

No costs were incurred under the above authorization.

Beach erosion control activities pursuant to Shoreline Erosion Control Act of 1974, Public Law 93-251.

No costs were incurred under the above authorization.

Flood Control

48. CENTRAL AND SOUTHERN FLORIDA

Location. The project is located generally within the southeastern eighteen counties of Florida covering an area of about 15,200 square miles. It is comprised of the Upper St. Johns River basin in the northeastern section of project, Kissimmee River basin in central section above the Lake Okeechobee-Everglades area in the central and southwestern section, and the east coast Everglades area in southeastern section.

Previous projects. Completed works for control of Lake Okeechobee were included in and constructed under the navigation project for Okeechobee Waterway, Fla. (formerly Caloosahatchee River and Lake Okeechobee drainage area, Fla.) and under provisions of River and Harbor Acts of July 3, 1930, and August 30, 1935. For further information, see Annual Reports, 1948 and 1949.

Existing project. The authorized project is for flood relief and water conservation and provides principally for: an east coast protective levee extending from the Homestead area north to the eastern shore of Lake Okeechobee near the St. Lucie Canal; three conservation areas for water impoundment in the Everglades area west of the east coast protective levee with control structures to effect transfer of water as necessary; local protective works along the lower east coast; encirclement of the Lake Okeechobee agricultural area by levees and canals; enlargement of portions of Miami, North New River, Hillsboro, and West Palm Beach Canals; enlargement of the existing Lake Okeechobee levees and construction of new levees on the northeast and northwest shore of the lake; increased outlet capacity for improved control of Lake Okeechobee; floodway channels in the Kissimmee River basin, with suitable control structures to prevent over-drainage; an interrelated system of canals, levees, pumping stations, and structures in southwest Dade County to control water levels; and facilities for regulating floods in the Upper St. Johns River basin; a system of canals and control structures for gravity drainage of Martin County and distribution of available water supplies to portions of Martin and St. Lucie Counties; and works to improve the supply, distribution, and conservation of water resources in central and southern Florida, including the Lake Okeechobee agricultural area, Everglades National Park, and other related areas. The project will provide water control and protection from recurrence of the devastating floodwaters from the Everglades and local sources, for the highly developed urban area along the lower east coast of Florida and for the productive agricultural areas around Lake Okeechobee (including towns around lake), in the Upper St. Johns and Kissimmee River basins, and in South Dade County. Project also provides for navigation improvements suitable for recreational craft, consisting of locks and channel dredging in the upper Kissimmee and St. Johns basins.

The project includes a total of 990 miles of levees, 978 miles of canals, 30 pumping plants, 212 floodway control and diversion structures, 56 railroad bridge relocations, and 2 highway bridge relocations.

The project also provides that upon completion, local interests assume operation and maintenance of all completed works except levees, channels, locks, and control works for regulation of Lake Okeechobee and the main control structures of conservation areas, which will be operated and maintained by the United States.

The principal features of the hurricane gates, constructed under previous projects for Okeechobee Waterway and maintained under existing project since July 1, 1950, are set forth in Table 9-K. See also Table 9-L for principal features of locks and dams.

Estimated cost for new work (Oct. 1987 price levels) is $840,400,000 Federal funds ($838,000,000 Corps and $2,400,000 U.S. Coast Guard) and $186,712,000 contributed funds, exclusive of river and harbor funds expended on previous projects. Local interests' costs in reviewing plans and specifications are expected to be $654,000. In addition, estimated cost to local interests of lands, rights-of-way, and relocations is $294,163,000. (See Table 9-B for Authorizing Legislation.)

Local cooperation. (See Table 9-M for local cash contribution.) Local interests must also: provide lands, rights-of-way, and spoil disposal areas; hold the United States free from damages; bear the cost of maintenance and operation of all works except those having to do with regulation of Lake Okeechobee and the main control structures of conservation areas; construct and maintain lateral drainage facilities; prohibit encroachment on flood-carrying capacity of the improved channels; and assume cost of all new highway bridges, relocations of existing bridges and alterations to utilities incident to construction of the project. In addition, for small boat navigation channels, local interests must provide, maintain, and operate adequate public landings, sanitary and access facilities, and establish regulations prohibiting discharge of pollutants into the waters of the locks and channels by users thereof.

Assurances of local cooperation have been accepted by the District Engineer for all items of work authorized to date except those for the Small Boat navigation feature added in 1970 under Section 201 of the Flood Control Act of 1965.

Operations and results during fiscal year. (See Table 9-N for work accomplished.)

Operations and care. a. Features completed under previous navigation project for Okeechobee Waterway and being maintained under this project are: a levee about 70 miles long following in general the south shore of Lake Okeechobee and a north shore levee 15.8 miles long; spillways at Ortona and St. Lucie locks; 5 hurricane gates; 20 gated drainage culverts through the levee; and 16 spillways along St. Lucie Canal.

b. Features completed under existing project that are to be maintained with operation and maintenance funds are: (1) Levees 47, 48, 49 and 50 — total length 63 miles and enlargement of existing levees L-D1, L-D2, L-D3, L-D4, and L-D9, (2) spillway structures S-10, S-11, S-12, S-18C, S-77, and S-78 (3) C-43, Sec 4 (Caloosahatchee River), and (4) W. P. Franklin Lock and Dam.

In addition to the actual facilities listed above it is necessary under operation and maintenance to continue meteorological studies, water level records, stream gaging stations, etc., for proper regulation of the level of Lake Okeechobee and storage of water in Conservation Areas 1, 2 and 3.

Corps of Engineers - The Corps of Engineers operates and maintains the major outlets to Lake Okeechobee and Water Conservation Area Nos. 1, 2A and 3A in central and southern Florida.

South Florida Water Management District — SFWMD is responsible for operation and maintenance of the remainder of the project facilities, including major pumping stations, spillways, locks (except on Okeechobee Waterway), levees and culverts.

Condition at end of fiscal year. The scheduled work of project is 81 percent complete. Planning for the entire project began in November 1948 and has been continued. For construction completed prior to Fiscal Year 1980 see Annual Reports for 1960-1979. Construction completed under existing project during the fiscal year is set forth in Table 9-O. All Federally maintained features of the project were generally in good condition at the end of the fiscal year. (For status of work under contract at end of fiscal year see Table 9P.)

Total Federal costs under the existing project through September 30, 1987 were $300,617,159 for new work, $55,697,504 for maintenance, a total of $356,314,663. In addition, $53,412,653 has been expended from contributed funds for new work.

49. FOUR RIVER BASINS, FLA.

Location. The Four River Basins area covers about 6,000 square miles within 14 counties in central and southwest peninsular Florida. Project includes all or part of the four main stream basins—the Hillsborough, Oklawaha, Withlacoochee, and Peace Rivers—and all of three smaller coastal basins north of Tampa, Florida, drained by the Pithlachascotee and Anclote Rivers and Lake Tarpon.

Existing project. The authorized project provided for improvements for control of floods and drainage, and for water conservation through construction of necessary canals, levees, reservoirs, and control structures. More specifically, the project provided for: *Green Swamp Area*—a conservation area and three storage reservoirs with necessary canals and control structures; *Hillsborough River*—four flood-storage reservoirs, with necessary channels, control structures, and levees; *Oklawaha River*—a levee on the north shore of Lake Apopka, improvement of part of the river channel and a west bank levee below Moss Bluff lock and dam, and replacement of the lock and dam; *Withlacoochee River*—one flood-storage reservoir with outlet canals and control structures; *Peace River*—Peace Creek canal and control structures and improvements to the existing water control and drainage features; *Gulf Coastal Areas*—Lake Tarpon: outlet canal and control structure; Anclote River: control structure and channel improvement; Pithlachascotee River: reservoir with outlet canals and control structures. (See Table 9-Q on Moss Bluff Lock.)

Estimated cost for new work (Oct. 1987 price level) is $153,000,000 Federal funds and $128,700,000 non-Federal cost. ($32,000,000 contributed funds; $57,500,000 for lands and damages; and $39,200,000 for relocations.) (See Table 9-B for Authorizing Legislation.)

Local cooperation. Local interests must furnish all lands, and rights-of-way; provide all alterations or replacements of public and private utilities, roads, bridges (except railroad bridges), etc.; hold the United States free from damages; operate and maintain all project works after completion; construct and maintain such associated works as are necessary to realize benefits made available by the project works; and contribute in cash 17 percent of the first cost of construction and 50 percent of recreation costs.

Operations and results during fiscal year. New work: Contract for Dead River recreation sites was completed at a cost of $556,393. Engineering and design and supervision and administration costs were $174,417 and $133,099, respectively.

Condition at end of fiscal year. Construction of the project commenced April 18, 1966 and the scheduled work is 98 percent complete. See Table 9-R for construction of major features of the project completed to date.

50. PORTUGUES AND BUCANA RIVERS P.R.

(This project authorized as Lago de Cerrillos, Lago de Portugues, and Channel Improvement at Ponce.)

Location. Portugues and Bucana Rivers originate on the southern slopes of Cordillera Central divide of Puerto Rico and flow from this central ridge of the island to the Carribean Sea. Their drainage areas are 22.6 and 31.4 square miles, respectively. Ponce, the second largest city in Puerto Rico, is located in the lower coastal area along Portugues River and is the only urban community in the two basins.

Existing project. The authorized project provides for two multiple-purpose reservoirs for flood control, water supply, general recreation, and fish and wild-

DEPARTMENT OF THE ARMY
OFFICE OF THE ASSISTANT SECRETARY
WASHINGTON, DC 20310-0103

2 5 AUG 1989

Honorable Dale Bumpers
United States Senate
Washington, D.C. 20510-6150

Dear Senator Bumpers:

This is in response to your letter of July 7, 1989, regarding S.724, the Everglades National Park Protection and Expansion Act of 1989. Our answers to Senators Bradley and McClure's questions concerning the role of the Army Corps of Engineers in the Everglades water restoration project are enclosed.

I hope this information is helpful. If I can be of further assistance to you on this or other matters, please do not hesitate to call.

Sincerely,

for Frank R. Finch

Robert W. Page
Assistant Secretary of the Army
(Civil Works)

Enclosure

FRANK R. FINCH
COL, GS
Executive, OASA(CW)

Answers to Senator James McClure

The Everglades National Park Protection and Expansion Act of 1989

June 20, 1989

Question 1. Everglades National Park officials have stated that the sole purpose of the L-31W canal is to deliver water into the Park. Is this correct? Please explain in detail and provide the Committee with supporting documentation.

Answer. The L-31W canal is an integral part of the canal system which is designed to control water levels in South Dade County. It is used to meet minimum delivery requirements to the Park via Taylor Slough, but it also is used to help meet urban and agricultural needs. The initial concept for South Dade County plan contained in the Comprehensive Plan and authorized by the 1948 Flood Control Act, (PL 80-858) called for the area to be protected by Levee 31 (L-31). Later analysis led to a revision of the project. The Survey Review Report on South Dade County as presented in Senate Document No. 138 (dated September 1961) and authorized by the Flood Control Act of 1962 (PL 87-874), recommended a plan that would convey all the runoff, east of L-31 and north of Homestead, to the east via six eastward canals.

In response to the desires of Everglades National Park (ENP), the local sponsor (South Florida Water Management District), the U.S. Fish and Wildlife Service, and land developers, the South Dade County Plan was modified using the discretionary authority of the Chief of Engineers. The major changes were Canal 111 (C-111) would collect runoff from a series of southward canals and convey the runoff to Barnes Sound, and L-31 was realigned around the Frog Pond area to the eastern boundary of ENP. Levee 31W was designed to prevent flooding from ENP into agricultural and industrial areas lying to the east. The L-31W Borrow Canal was designed to convey flow to ENP when normal runoff was available within the drainage area. This plan was presented in the General Design Memorandum, South Dade County (Part V, Supplement 37), approved by the Chief of Engineers in November 1963. The Frog Pond was intended to drain to C-111.

The uses of L-31W Borrow Canal were recognized in Senate Document No. 20 authorized by the Flood Control Act of 1965 (PL 89-298). Page 18 of the report states, "Levee 31N is an authorized levee along the eastern edge of the Southwest Dade area which will protect urban and agricultural developments in the South Dade area from being flooded when water is ponded overland west of the levee. The borrow canal for L-31(W) and Canal 111 are integral parts of the canal system designed to control water levels in South Dade County and to permit the normal runoff from this area to be released to the South or into Everglades National Park."

The ENP-South Dade Conveyance Canal System was presented in H.D. 369 and authorized by the Flood Control Act of 1968 (PL 90-483). The Conveyance System was authorized for the purpose of improving the supply and distribution of water supplies to ENP, and the expanding agricultural and urban needs. The original east alignment of the conveyance system considered was found to be not as economical as the west alignment at that time thus the west alignment was recommended in House Document 369. Page 68 of House Document 369 states, "These canals would improve distribution of water to the Park, particularly low flow conditions...the continuation of Levee 67 Extension Canal and auxiliary pumping station, to the junction with the authorized South Dade Canal System would convey water to Taylor Slough, the eastern and South Dade County." In the General Design Memorandum-Conveyance Canals to Everglades National Park and South Dade County (Part V, Supplement 52) approved by the Chief of Engineers in November 1973, the east alignment was modified. Re-analysis revealed it was less costly than the west alignment and the east alignment was recommended. As a part of the Conveyance System, modifications were made upstream of L-31W (including improvements to the L-31N Borrow Canal upstream of its confluence with Canal 103) to enable adequate delivery of water to Taylor Slough via L-31W and the ENP eastern panhandle via C-111. Pump station 332 in L-31W was provided and is operated to provide the minimum monthly water delivery requirements to Taylor Slough mandated by PL 91-282.

PL 91-282 specifies that 315,000 acre feet of water be delivered to the Park annually, except during drought years when the Park would receive 16.5 percent of total project deliveries. The minimum delivery schedule of Taylor Slough is 37,000 acre-feet per year.

Question 2. One of the stated purposes of this legislation is to restore "natural hydrologic conditions" in the Everglades by permitting increased flows through both the northeast Shark River Slough and the Taylor Slough area.

Will Congress need to consider further legislation in the future and will Federal and State agencies need to implement other changes or legislation to fulfill the promise of restoring the Everglades to a more natural condition? Please specify what additional actions will need to be taken.

Answer. Based on a review of history and considering the rapid growth in Florida and competing interests, it is likely that additional action will be required by local, State, and Federal interests to fulfill the promise of restoring the Everglades to a more natural condition. This includes legislation to modify and make operational changes in the Central and Southern Florida project.

There are other activities by the State of Florida that will help to fulfill the promise of restoring the Everglades to a more natural condition. In their March 1989 report, the Lake Okeechobee Technical Advisory Committee, established by the State of Florida, found that, "The nutrients in water pumped from the Everglades Agricultural Area impact the biological integrity of the native ecosystem of the Everglades marsh in Water Conservation Areas 1, 2, and 3. Left unchecked, these impacts could spread throughout the Water Conservation Areas and the marsh within Everglades National Park. These areas are of statewide, national, and international significance. These adverse impacts are caused by agricultural drainage, an activity begun long before our current environmental concerns and facilitated by commonly accepted public works. This is not a case of recalcitrant polluters; this is a situation where an unwanted side effect of beneficial public and private water management practices must be corrected through public and private pollution control efforts." The State Legislature just enacted legislation to set up a special taxing district in the Everglades Agricultural Area to collect money to fund pollution control efforts in that area.

Question 3. It is assumed that the Frog Pond area and the "8.5 square mile area" will receive some flooding if the Park is allowed to restore the natural water flow.

What will be the extent of this flooding?

What modifications and/or measures will be required in order to ensure that the agricultural lands of Frog Pond and the 800 residents of the "8.5 square mile area" area protected?

Answer. The Corps of Engineers is preparing a General Design Memorandum on Modified Water Deliveries to Everglades National Park that will address structural and operational changes to the Central and Southern Florida Project necessary to improve water deliveries to Everglades National Park at Shark River Slough. There is a residential area located in Northeast Shark River Slough, west of Levee 31 (N) known as the 8.5 square mile area.

The plan being considered in the General Design Memorandum would produce some flooding in the 8.5 square mile area. The proposed plan includes construction of a flood protection system for the 8.5 square mile residential area adjacent to Northeast Shark River Slough to mitigate adverse impacts that would be associated with modified water deliveries to ENP. The 8.5 square mile area would be protected by levee. Excess water from this residential area would be pumped to the L-31N Borrow Canal. A pump station would pump water from the north end of L-31N Borrow Canal into Northeast Shark River Slough. The pump station would also have the capacity to discharge additional seepage inflows to the L-31N Borrow Canal that would result from modified water deliveries to ENP.

Based on our analysis, there would be no adverse hydrologic effects on the Frog Pond agricultural area as a result of the plans being considered. The proposed plan in our General Design Memorandum addresses alternatives to improve ENP deliveries to Shark River Slough. The proposed plans will not affect ENP deliveries in Taylor Slough. Taylor Slough is located adjacent to the Frog Pond. The flood protection for the 8.5 square mile area could reduce flood protection for the Frog Pond if that feature increased inflows to C-111. However, the plan considered in the General Design Memorandum should cause no additional flow to C-111. Thus, the proposed plan should produce no adverse impacts for the Frog Pond area.

Question 4. In addition to the two areas just discussed, there are additional agricultural lands adjacent to the proposed Park boundary.

Will these lands require protection from flooding?

What modifications/measures will be required to provide such protection?

Answer. The agricultural lands referred to in your question are located west of Levee 31W and south of the 8.5 square mile residential area. Based on our analysis, the plans considered in our General Design Memorandum should cause no adverse impact on those agricultural lands. Thus, no modifications or measures would be required to provide protection for those lands.

Question 5. Please provide your best estimated cost that would be required to protect these lands from any adverse impacts they might receive from the increased water flow to the Park. Specifically, Frog Pond, the "8.5 square mile area," and other agricultural units.

Answer. As discussed in our responses to your questions 3 and 4, the plans we are evaluating in the Modified Water Deliveries General Design Memorandum will not adversely impact the Frog Pond or the other agricultural units. Thus, there will be no cost to protect those lands. The estimated cost of the proposed flood protection system for the 8.5 square mile residential area is about $27 million.

Question 6. Would these expenditures be absorbed by the Department of Interior or by the Army Corps of Engineers?

Answer. We believe the initial costs required to restore the Everglades and expand the park included in the Modified Water Deliveries General Design Memorandum should be funded by the Department of the Interior. This would eliminate the need for the project to compete for new appropriations in two separate programs, thereby avoiding the conflicting priorities and possible delays inherent in multiple appropriaton reviews. If included in the Interior program the project would need to compete only once with similar projects.

Question 7. Experimental water deliveries to the Park were originally authorized in Section 1302 of the Supplemental Appropriation Act of 1984 for a two-year period and were subsequently extended for a two-year period in the Water Resources Development Act of 1988.

Has the Army Corps of Engineers ever produced a final report on the effects of the experimental water delivery program on the Park?

If not, why not?

If so, please forward the information to the Committee? If no report has been made, please provide a detailed analysis of those experimental deliveries.

Answer. A final report has not been completed. General Design Memorandum for Modified Water Deliveries to ENP is being prepared. The purpose of the General Design Memorandum is to develop a plan for improved water deliveries to ENP, prepare designs and cost estimates for the necessary structural and operational modifications, identify the most cost effective means of mitigating adverse impacts in the developed portion of Northeast Shark River Slough, address land acquisition, and describe potential environmental benefits. Specific operating criteria are being developed through the field test and associated data collection. The General Design Memorandum is scheduled for completion in Fall 1989.

Question 8. The poor quality of water flowing into Everglades National Park is one of the major factors contributing to its degradation.

What steps need to be taken to bring the quality of water to acceptable levels?

What is the estimated cost of these measures?

Answer. We do not agree with the proposition that current water deliveries are causing degradation. Senate Report No. 91-895 that accompanied PL 91-282 (1970) recognized that, "in order to preserve the Park's unique ecosystem, it is important that consideration be given to the quality of the water delivered. The Corps and the National Park Service should seek to reach an early agreement on measures to assure that the water delivered to the Park is of sufficient purity to prevent ecological damage or deterioration of the Park's environment." Water quality data collection networks were established by the Corps of Engineers, the South Florida Water Management District, the Everglades National Park, and the United States Geological Survey, to provide sufficient data so comparison could be made between delivery and in-park receiving water quality. The water quality data base was analyzed from 1970 to 1978, to determine the water quality of delivery water and to select representative sampling sites. It was determined in the analysis that water quality of ENP deliveries at that time was sufficiently high to be adopted as criteria against which future water quality could be compared. These criteria were adopted through a joint Memorandum of Agreement between the National Park Service, the Corps of Engineers, and the South Florida Water Management District in January 1979. The Memorandum of Agreement was revised in February 1984. Data collected since 1979 indicates that water delivered to the Park generally meets the Standards in the Memorandum of Agreement. The standard for dissolved oxygen and PH is violated; however, the three agencies are in general agreement this is not causing degradation. The nutrient standards have been violated in only one year, 1985, and that was primarily due to a drought. It should be noted that Everglades National Park representatives maintain that the criteria in the Memorandum of Agreement for some water quality parameters is not exacting to protect the resources.

Lake Okeechobee and the Water Conservation Areas are the source of water supply for deliveries from the Central and Southern Florida Project to Everglades National Park. There have been adverse water quality changes in Lake Okeechobee and the Water Conservation Areas north of Everglades National Park. These water quality changes in the Water Conservation Areas are causing changes in the native Everglades species in the Water Conservation Areas. There is much concern that these changes could eventually occur in Everglades National Park.

Steps need to be taken to reduce nutrient loads in runoff to Lake Okeechobee and the Water Conservation Areas. Best Management Practices are being implemented at agricultural operations north of Lake Okeechobee to help reduce nutrient loads. The Soil Conservation Service feels that there are Best Management Practices that can be implemented in the Everglades Agricultural Area south of Lake Okeechobee to reduce nutrient loads to the lake and the Water Conservation Areas. In 1987, the State of Florida adopted a law requiring the Water Management Districts prepare Surface Water Improvement and Management (SWIM) Plan for various water bodies in the State. The South Florida Water Management District has completed a SWIM Plan for the Lake Okeechobee Basin and is currently preparing a SWIM Plan for the Everglades Agricultural Area - Water Conservation Areas - Everglades National Park Basins. The Corps of Engineers and variety of agencies reviewed the Lake Okeechobee Plan and a representative from the Corps of Engineers is on the Everglades SWIM Plan Technical Advisory Committee. The Water Management District is constructing an experimental flow-way north of Water Conservation Area No. 1 to test this concept as a way of treating agricultural runoff.

Other options may include some on-site retention in the Everglades Agricultural Area and additional flow-ways. These options will likely be expensive and could result in agricultural lands being taken out of production. Other options include proposals to divert nutrient rich water away from to Lake Okeechobee and the Water Conservation Areas. We do not have an accurate estimate of the costs of these various measures.

Senator Bill Bradley, 20 June 1989

Questions for National Park Service and Corps of Engineers Responses

Question 1. I note that your testimony urges "swift enactment" of the bill if it is amended as described later in your testimony. Specifically, your testimony calls on Congress to address the "water management" portion through "appropriate authorizations." You stress the Administration's support is contingent upon such actions. What are appropriate authorizations?

Answer. Defer to the Department of Interior.

Question 2. Although you note that "there are important issues regarding the quality of water entering the Park," your testimony provides us with no further comments. How does the Administration propose to prevent additional water quality degradation in the Park? Is the Administration willing or able to mitigate the inflow of agricultural runoff into the Park? Are there existing Federal authorities which could lead to the protection of surface water quality in the Park? Does the Administration fully support a lawsuit that has been filed by the U.S. Attorney for Miami, Florida, against the State of Florida, which alleges that the State has failed to enforce its own mandated water quality standards?

Answer. Defer to the Department of Interior.

Question 3. You are representing the Administration today. I would like to know a bit more of the Army Corps of Engineers' involvement in this region. Can you provide, for the record, a brief history of the Army Corps projects in Southern Florida which have had an impact on water quality in the Everglades? How much Federal, State, and local money (in 1989 dollars) has been spent on these projects to date? Have these projects allowed the expansion of local agriculture and, if so, how much?

Answer. In 1881, the State of Florida sold 4 million acres to Hamilton Disston in return for him entering into a contract for draining and reclaiming all of the Everglades lands belonging to the State of Florida. Disston's company cut a canal from Lake Okeechobee to the Caloosahatchee River and dug canals to connect many of the Kissimmee Basin Lakes until his death in 1896, upon which those activities ceased. In 1905, the State of Florida established the Everglades Drainage District. The Everglades Drainage District was given taxing authority and was directed to drain and reclaim swamp and overflowed lands within the State. Between 1906 and 1931, the Everglades Drainage District dug a series of canals from Lake Okeechobee to the Atlantic Ocean to drain part of the area and relieve the coastal areas of excess water.

In 1926 and 1928, hurricanes struck the Lake Okeechobee region killing a total of between 2,000 to 3,000 people. In response to these disasters, the Corps of Engineers submitted a plan for Lake Okeechobee to Congress (Senate Document No. 115) which was approved by Congress in the Rivers and Harbors Act of 1930

(PL 71-320). The principal features were improvement of the Caloosahatchee River and St. Lucie Canal, and construction of a flood protection levee and navigation channel along the south shore of Lake Okeechobee.

Extreme dry spells in 1931 and other years through 1945, resulted in lowered ground-water levels, and the serious threat of saltwater intrusion into the sources of municipal water supply for coastal cities. The peat soils of the Everglades dried out and shrunk and much of the area burned. Then, in 1947, hurricane winds and rains flooded three million acres of land in Central and Southern Florida for periods of many months.

It was the sense of public hearings held by the Corps of Engineers that the uncoordinated efforts of many agencies in the past had failed to solve the many problems, and the problem was too large and complex for the State and local agencies to handle. The feeling was one comprehensive plan was needed to cover all phases of the water problems and which included the entire area.

The Corps of Engineers prepared a comprehensive report in 1948, which was published as House Document No. 643. House Document No. 643 and the Central and Southern Florida Project was authorized by the Flood Control Act of 1948 (PL 80-858). The plan called for construction of a comprehensive water management system superimposed over the existing drainage system. The project purposes include flood control; municipal, industrial, and agricultural water supply; prevention of saltwater intrusion; preservation of fish and wildlife, water supply to Everglades National Park, navigation, and recreation.

In House Document No. 643, the Chief of Engineers stated, "Development of the comprehensive plan of improvement would afford a high degree of flood protection throughout the area; it would provide for removal of excess waters in the wet season, and for their control, storage, and use in maintaining water levels during dry periods. In addition to these primary purposes, the improvements would reduce the dry season intrusion of salt water into lands and water supplies of coastal areas. Its features would produce substantial benefits from the preservation of fish and wildlife resources." The importance of this project to Everglades National Park was clearly stated by the Chief of Engineers in House Document No. 643, when he stated, "The plan of improvement has also been developed in full recognition of the importance of Everglades National Park which has been established recently at the Southwestern tip of the Florida Peninsula. Release of water from conservation storage will assist in restoring and maintaining natural conditions within the national park area, by reducing damage from drought and fire which have threatened the preservation of lands, vegetation and wildlife." The Assistant Secretary of the Interior stated, "as concerns the National Park Service, the question is not one of too much water, but a guarantee that there shall not be too little."

In 1968, the Corps of Engineers prepared a report on water resources for Central and Southern Florida, published as House Document No. 369, and authorized by the Flood Control Act of 1968. In this report, the Corps of Engineers stated, "Preservation of the Everglades is a project purpose and that available water should be provided on an equitable basis with other users...water quality is a vital function in proper water-resource management and will be incorporated in operational procedures as may be dictated by results of continuing investigations in this area in cooperation with affected State and Federal agencies." The Deputy Director of Department of Interior once again emphasized the Park's need for water that surplus flood waters be delivered to the Park, rather than discharged to the ocean. The 1968 Flood Control Act authorized a number of measures to improve Everglades National Park.

a. ENP - South Dade Conveyance System to convey water from Water Conservation Area No. 3A the Park in Taylor Slough and the Eastern Panhandle.

b. Improvement of Miami and North New River Canal to convey water from Lake Okeechobee to ENP - South Dade Conveyance System, and provide for excess flood waters from the lake to be discharged into the Water Conservation Areas and then into the Park.

c. Concept that first priority of releasing floodwaters from Lake Okeechobee is south into water conservation areas rather than through the St. Lucie Canal and Caloosahatchee River.

d. Structure in Buttonwood Canal near Flamingo to prevent hyper-saline water from Florida Bay from entering the fresh to brackish waters of Whitewater Bay and Coot Bays within the Park.

These features are now complete and operational.

In 1970, Congress passed PL 91-282 which guaranteed a minimum delivery of 315,000, acre-feet of water per year to Everglades National Park from the Central and Southern Florida Project. During drought years, the Park would receive 16.5 per cent of total project deliveries. The schedule is 260,000 acre-feet at Shark River Slough, 37,000 acre-feet at Taylor Slough, and 18,000 acre-feet at the Eastern Panhandle. Senate Report No. 91-895 that accompanied PL 91-282 directed the Corps of Engineers and National Park Service reach agreement on assuring good quality water is delivered to the Park. The Memorandum of Agreement is discussed in detail in our response to question 2.

PL 98-181 (November 1983) authorized a program of experimental water deliveries to the Park. We are currently testing new schemes of improved water deliveries to the Park. In addition, we are preparing a General Design Memorandum for Modified Water Deliveries to Everglades National Park. The plan being considered is vital to the long term health and viability of Everglades National Park.

The Central and Southern Florida Project is located within the southeastern sixteen counties of Florida covering area of about 18,000 square miles. Major physical features within the project area include the Kissimmee Basin, Upper St. Johns Basins, Lake Okeechobee, the Everglades Agricultural Area, three

Water Conservation Areas, the Lower East Coast, and Everglades National Park. The project includes about 900 miles of levees, 1,000 miles of canals, 30 pump stations, and over 200 water control structures. Lake Okeechobee, surrounded by Herbert Hoover Dike, functions as a multipurpose reservoir that is the liquid heart of South Florida.

The estimated cost for new work (October 1988 price levels), is $872,000,000, Federal, and $216,255,000, contributed funds, exclusive of river and harbor funds expended on previous projects. The estimated cost to local interests of lands, rights-of-ways, and relocations is $308,748,000. The total project cost is, therefore, approximately $1.4 billion.

The Central and Southern Florida Project has made possible much of the agricultural development present in Central and Southern Florida. Sugarcane and winter vegetables are grown in the 600,000 acre Everglades Agricultural Area south of Lake Okeechobee. There are a variety of ranching and dairy operations located north of Lake Okeechobee and in the Kissimmee River Basin. There is much citrus grown in Martin and St. Lucie Counties in the Canal 23, 24, and 25, and St. Lucie Canal areas. South Dade County produces many winter vegetables, limes and avocados, and Cuban crops. It was determined that in the case of the Central and Southern Florida, the cost allocated to increase land use was comparable to the cost allocated to irrigation in western projects. The local sponsor has been required to contribute 20 per cent of the construction cost of project works.

The Central and Southern Florida Project has provided basic flood control and water supply needs of the area, while preserving much of the historic Everglades. The drainage activities prior to the Project reduced the volume of flow to the area now encompassed by Everglades National Park. The Central and Southern Florida Project reversed those trends, and has increased the volume of water available to Everglades National Park. It is likely that without the Project, much of the Everglades preserved in the Water Conservation Areas would have been drained.

STATE OF FLORIDA
Office of the Governor
THE CAPITOL
TALLAHASSEE, FLORIDA 32399-0001

BOB MARTINEZ
GOVERNOR

July 17, 1989

Honorable Dale Bumpers, Chairman
Senate Energy and Natural Resources
Subcommittee on Public Lands, National
Parks and Forests
SD-308
Dirksen Senate Office Building
Washington, D.C. 20510-6150

Dear Senator Bumpers:

Thank you for your letter of July 7 regarding the Everglades National Park Protection and Expansion Act of 1989. I appreciate your interest in this joint federal/state effort to expand and protect the public resources invested in Everglades National Park as proposed in S 724. My response to the questions by Senator Bradley is enclosed.

Protection and restoration of the Kissimmee River-Lake Okeechobee-Everglades System is a high priority program of the State of Florida. Restoration of Everglades National Park is a major component of this program which has been underway for six years.

Substantial progress has been made for the benefit of the Park including an experimental modified water delivery schedule for Northeast Shark River Slough in the East Everglades, hydrologic improvements to Alligator Alley in its conversion to Interstate 75 to restore more natural water flow to the Park, and the expansion of the Big Cypress National Preserve to protect the headwaters to the western portion of the Park.

Of a paramount importance to the restoration of historic water flow and long-term protection of the ecological resources of the Park is public acquisition of the East Everglades. The joint federal-state acquisition to expand the Park's eastern

Honorable Dale Bumpers
Page 2

boundary, as proposed in S 724, would represent an unprecedented degree of intergovernmental cooperation to protect this truly unique national park, and merits prompt and favorable Congressional action.

I would greatly appreciate your support for this important legislation.

Sincerely,

Bob Martinez

Governor

BM/mjd

Enclosure

RESPONSE TO SENATOR BILL BRADLEY'S QUESTIONS OF GOVERNOR MARTINEZ

JULY 17, 1989

Chapters 373, 376, and 403, Florida Statutes, authorize the Florida Department of Environmental Regulation and the South Florida Water Management District to protect surface and groundwater quality. The regulatory and planning programs provided for in these laws are used statewide to protect and restore surface and groundwater against all sources of water pollution subject to specific provisions. These programs are currently being used to protect Everglades National Park.

There is not conclusive evidence that activities regulated by the State and the South Florida Water Management District have resulted in water quality degradation in Everglades National Park. However, there is clear documentation of the problems in the Park related to hydrologic alterations.

Everglades National Park is the southern most part of the Kissimmee River-Lake Okeechobee-Everglades ecological system. For the past six years, protection and restoration of this system has been a high priority program of the State of Florida. Restoration of historic water flow and protection of water quality in the Park is a major component of this overall program. Progress to date in restoring and protecting the Park includes the development and implementation of an experimental modified water delivery schedule for Northeast Shark River Slough in the East Everglades, installation of hydrologic improvements along Alligator Alley in its conversion to Interstate 75 to restore more natural water flow to the Park from the State water conservation areas, and the expansion of the Big Cypress National Preserve to protect the headwaters to the western portion of the Park.

The State is also in the process of acquiring over 40,000 acres of private land immediately north of the park in Collier County in an area known as Golden Gate Estates. It is the State's intention to restore these previously drained (1960's) wetlands and thereby improve the hydrology and biological productivity of the western portion of the Park.

It is critical to the restoration of historic water flow and long-term protection of the ecological resources of the Park that lands in the East Everglades be brought into public ownership and included in the Park. This will enable the permanent restoration of water flow into the Park through Northeast Shark River Slough and allow consistent management of these lands and waters.

In 1987, the Florida Legislature enacted the Surface Water Improvement and Management (SWIM) Act to restore and protect the lakes, rivers, streams, and estuaries of Florida. The South Florida Water Management District, pursuant to the SWIM Act, has developed a plan for the cleanup and protection of Lake Okeechobee. The District is currently developing SWIM plans for Everglades National Park and the upstream watershed including the State Water Conservation Areas and the Everglades Agricultural Area. A goal of this plan is to reduce nutrient loading into the water conservation areas and thereby reduce the potential for increased nutrients flowing into the Park.

Lake Okeechobee and the Water Conservation Areas are components of the Central and Southern Florida Project and under the jurisdiction of the U.S. Army Corps of Engineers. This project provides multiple benefits including flood control, water supply, and fish and wildlife.

Since 1987, the State has spent or appropriated over thirty-two million dollars for the restoration and protection of the Kissimmee River-Lake Okeechobee-Everglades system. Further, the State intends to continue to allocate resources to this major public goal, including the contribution of 34,572 acres of state land and twenty percent of the additional costs for acquiring the East Everglades for expansion of Everglades National Park as provided for in S 724.

APPENDIX II

Additional Statements for the Record

STATE OF FLORIDA
Office of the Governor
THE CAPITOL
TALLAHASSEE, FLORIDA 32399-0001

BOB MARTINEZ
GOVERNOR

Statement by Governor Bob Martinez
on behalf of the State of Florida

to the

Senate Energy and Natural Resources Subcommittee
on Public Lands, National Parks and Forests

in support of

The Everglades National Park Protection
and Expansion Act (S 724)

June 20, 1989
Washington, D.C.

Mr. Chairman and Members of the Subcommittee:

I appreciate this opportunity to express my strong support for prompt and favorable Congressional action on legislation to authorize the expansion of Everglades National Park (S 724). Florida speaks with a single, bipartisan voice on this vital issue, as demonstrated by the sponsorship of Senator Graham, the co-sponsorship of Senator Mack and that of the entire Florida Congressional Delegation, and the full support of my office.

For too long, the importance of the Everglades system went unrecognized. For more than a century, the principal objective was to drain the Everglades to turn it into cities and farmland; only in the last few decades have we realized that the Everglades plays a far more important role. Everglades National Park was established in 1947 to preserve the unique resources and unspoiled natural conditions of the area, which is home to more endangered species of plants and animals than any other national park.

However, at the time the park boundary was established, there existed only a rudimentary understanding of the complexities of the Everglades ecosystem and how it functioned. A large, hydrologically significant section of historic Everglades that was critical to the overall healthy functioning of the system was unwisely left out of the park boundaries. This section is the Northeast Shark River Slough, which is located in the area known as the East Everglades in western Dade County, Florida.

Historically, about one-half of the overland sheet flow of water into the Park from the Everglades flowed through Northeast Shark River Slough. We now recognize that the Everglades National Park is under tremendous stress as the result of previous efforts which altered the flow of water through Northeast Shark River Slough into the Park. In January 1988, I publicly proposed a joint federal-state effort to acquire private lands in the East Everglades, lands that are critical to restoring a more natural water flow into the Park. I subsequently established the East Everglades Land Acquisition Task Force to consider land acquisition and management options to further this goal and to otherwise increase protection of the Park from encroaching development.

I am pleased that the land acquisition recommendations of the Task Force, which were developed in consultation with federal and local government and private property representatives, are reflected in the legislation before you today. This legislation would substantially strengthen the federal-state partnership to protect and restore the unique and precious resources of the entire Everglades system. Under its provisions, the State of Florida would donate 34,560 acres of state-owned land in the East Everglades as a part of the proposed 108,000 acre expansion of the Park. In addition to this gift, the State would also provide 20 percent of the cost of the remaining privately-held land proposed for acquisition in Northeast Shark River Slough.

The Florida Everglades is truly one of nature's special gifts, and I have dedicated my administration to doing all it can to protect and restore this irreplaceable treasure. Florida's commitment to protecting and restoring the Park is unqualified, and this absolute commitment should be equalled by the federal government. As further evidence of the State's commitment to this partnership, I am attaching a recent resolution of support proposed by me and unanimously endorsed by the Florida Cabinet, a board of independently elected statewide officeholders of both parties.

The legislation also recognizes the importance of state and federal efforts to protect and restore the lands and waters of the larger hydrologic system of which the Everglades National Park is a part. In fact, the vitality of the Park depends on overland flow of water from the lands to the north. Roughly half of the Park's water flows from the Big Cypress Swamp and the Everglades, much of which remains in private ownership. The bill specifically authorizes the Interior Secretary to provide technical assistance, personnel, and other practical support to the State of Florida to assist ongoing state land acquisition efforts within the Kissimmee River/Lake Okeechobee/Everglades hydrologic basin, including the Big Cypress Swamp. Such assistance, which would be provided under cooperative agreement between the Secretary and the Governor, clearly needs to be encouraged to help make the best use of limited federal and state resources for achieving national Everglades protection objectives.

I would suggest that several additions be made to the bill to implement other important recommendations of the East Everglades Land Acquisition Task Force. It would be desirable to include a provision directing the Corps of Engineers to continue the design and to proceed with construction and implementation of the project for restoring flow to the park as quickly as possible, rather than await the completion of land acquisition in Northeast Shark River Slough. This would allow the Corps to construct necessary modifications to the water delivery system while the lands recommended for acquisition are being purchased.

I would also recommend that legislative language be included to assure the accomplishment of the authorized purposes of the Central and South Florida Project, that accommodation be made for the influence of the proposed Dade County west wellfield, and that flood protection be provided for the 8 1/2 square mile residential area. These recommended provisions would reduce potential regulatory conflicts that might otherwise result from the proposed expansion of Everglades National Park.

I am also pleased that Title II of the proposed legislation would direct a feasibility study of expanding and redesignating Fort Jefferson National Monument in the Dry Tortugas as a national park. Florida is strongly dedicated to the protection of the marine resources of this region and urges Congress to increase this protection through national park designation.

I want to acknowledge the strong, bipartisan support of the Florida Congressional Delegation for this legislation and to recognize Senator Graham for his leadership in sponsoring its introduction and to thank Senator Mack for his enthusiastic cosponsorship. I also must thank this subcommittee for its past support for Everglades protection initiatives, and I look forward to working closely with you to achieve enactment of the Everglades National Park Protection and Expansion Act of 1989.

Thank you very much.

Working for the Nature of Tomorrow.

NATIONAL WILDLIFE FEDERATION

1400 Sixteenth Street, N.W., Washington, D.C. 20036-2266 (202) 797-6800

Southeastern Natural Resources Center (404) 876-8733
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COMMENTS OF THE NATIONAL WILDLIFE FEDERATION ON S. 724, THE EVERGLADES NATIONAL PARK PROTECTION AND EXPANSION ACT OF 1989.

Presented to the Senate Committee on Energy and Natural Resources

Prepared by Rudolph Rosen, Ph.D.
Director
Southeastern Natural Resources Center
National Wildlife Federation

June 20, 1989

The National wildlife Federation (NWF) is pleased to comment on legislation intended to protect the Everglades National Park and to place into public ownership portions of the East Everglades. We fully support such protection and acquisition of additional Everglades wetlands by the Department of the Interior and administration of those lands by the Secretary.

We fully support the goals of the legislation as drafted. However, we offer suggestions for modification of H.R. 1727 to ensure that wildlife and habitat are actively managed, and to reverse wildlife declines and protect endangered species. We also ask that you maintain traditional public uses of the East Everglades and a cooperative role for federal and state fish and wildlife management agencies in managing the area's fish and wildlife resources.

The NWF is the Nation's largest conservation-education organization, having over 5.8 million members and supporters and 51 affiliated state and territorial organizations. In conjunction with our Florida affiliate, the Florida Wildlife Federation (FWF), and local conservation clubs associated with FWF, the NWF has steadfastly worked for decades to protect South Florida's precious Everglades.

The objective of S. 724 as currently drafted is to protect the Everglades National Park by limiting habitat losses due to habitat destruction and alterations in the hydrologic regime in areas outside the current boundaries of the park. The current proposal is to incorporate about 110,000 acres of state and private land into the park.

It is essential that hydrologic conditions in the acquired area, and ultimately the park, be managed to benefit wildlife and to restore the natural Everglades ecosystem. We are convinced that only by cooperative water management--by the National Park Service, U.S. Fish and Wildlife Service, Florida Game and Fresh Water Fish Commission, and South Florida Water Management District--will water flows be managed in a manner that provides for the recovery of wildlife and fish populations.

The East Everglades ecosystem and its wildlife have been disrupted for decades due to the adverse effects of altered hydrologic flows and invasion of exotic wildlife, fish, and vegetation. An active approach to managing populations of fish and wildlife and managing fish and wildlife habitat is essential to the development of a sound restoration and enhancement program. Such a program will require intensive habitat manipulation, which may include creating some temporary or permanent "artificial situations." An active management program is needed to reverse these conditions: to enhance wildlife populations, to protect endangered species, and to reduce impacts of exotics.

Currently, over a third of the East Everglades is managed by the Florida Game and Fresh Water Fish Commission as the East Everglades Wildlife Management Area. Acquisition of the remaining acres will enable wildlife managers to establish improved management programs that take an "ecosystem-approach," with special consideration given to enhancing populations of wading birds, Everglades kite, and Cape Sable sparrow. It is also possible to reverse declines in adversely affected populations of wildlife, yet provide continued traditional recreational use of harvestable fish, wildlife, and frogs. We believe such management requires cooperative efforts between the U.S. Fish and Wildlife Service and Florida Game and Fresh Water Fish Commission.

We are concerned that S. 724 as currently drafted would not provide sufficient flexibility to fully manage and enhance wildlife and fish populations, as well as to provide continued traditional recreational opportunity to the public.

S. 724 would designate the acquired area as part of the Everglades National Park and would require "managing" the area under park rules. However, we understand that several alternate administrative schemes for the acquisition have been proposed that would ensure active wildlife management and enhancement of declining populations of wildlife, while at the same time providing essential buffer to the park from development and allowing for manipulation of hydrologic patterns to benefit the park.

These alternate administrative schemes would maintain the Secretary of Interior's primary role in managing the acquired lands, but would provide a greater cooperative role for the U.S. Fish and Wildlife Service and Florida Game and Fresh Water Fish Commission in managing wildlife. Because these agencies have clear primary federal and state expertise for managing fish and wildlife (and fish and wildlife habitat), their involvement is essential to recovery of stressed populations and maintained traditional recreational use of fish, wildlife, and frogs.

The administrative alternatives of which we are aware include establishing the acquired area as a National Preserve, as a National Recreation Area, or as a National Wildlife Refuge. Only the latter (Refuge) would remove primary land management authority from the National Park Service. Any of these alternatives could provide for an active management program to recover and enhance wildlife, control exotics, and maintain traditional recreational uses, such as fishing, hunting, and frogging.

The above modifications to S. 724 are minor, but critical to ensure active management of the distressed East Everglades ecosystem. Changes in the hydrologic cycle and invasion of exotic vegetation, wildlife, and fish have been the most devastating influences on the area's wildlife populations. The proposed alternative administrative schemes would enhance the governments' (state and federal) and public's ability and involvement in solving these problems. In addition, the area has traditionally supported considerable public use. Under any of the proposed alternate administrative schemes, the area can be managed in a manner that restores stressed wildlife populations and provides a buffer to the park, yet continues to provide the traditional public recreation.

We hope these comments have been helpful as you consider S. 724, and offer our assistance in working to pass this essential legislation to protect South Florida's Everglades.

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